



# Rocglen Mine Independent Environmental Audit (IEA)

Conditions of Approval IEA

17 June 2019

Project No.: 0490612

Document details	
Document title	Rocglen Mine Independent Environmental Audit (IEA)
Document subtitle	Conditions of Approval IEA
Project No.	0490612
Date	17 June 2019
Version	3.0
Author	Oliver Moore, Tim Haydon
Client Name	Whitehaven Coal

#### Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
Draft	00	Oliver Moore / Tim Haydon	Oliver Moore		16.04.2019	
Final	2.0	Oliver Moore / Tim Haydon	Oliver Moore	Michael Gaggin	26.04.2019	
Final	3.0	Oliver Moore / Tim Haydon	Oliver Moore	Michael Gaggin	17.06.2019	Revision following comment from DPE

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## Signature Page

17 June 2019

# Rocglen Mine Independent Environmental Audit (IEA)

## Conditions of Approval IEA



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# Independent Audit Certification Form

Independent Audit Certification Form	
Development Name	Rocglen Mine
Development Consent No.	DA 10_0015 (Modification 4 – October 2018)
Description of Development	Rocglen Coal Mine is a conventional open-cut operation that is nearing end of mine life
Development Address	Riordan Road, Boggabri NSW 2382
Operator	Whitehaven Coal Pty Ltd (WHCPL)
Operator Address	Level 28, 259 George Street, Sydney NSW 2000
Independent Audit	
Title of Audit	Rocglen Mine Conditions of Approval Independent Environmental Audit
<p>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</p> <ul style="list-style-type: none"> <li>• The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits</li> <li>• The findings of the audit are reported truthfully, accurately and completely;</li> <li>• I have exercised due diligence and professional judgement in conducting the audit;</li> <li>• I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</li> <li>• I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</li> <li>• I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</li> <li>• Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</li> <li>• I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</li> </ul> <p>Note.</p> <p>a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</p> <p>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement – maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents – maximum penalty 2 years imprisonment or \$22,000, or both).</p>	
Signature	
Name of Lead / Principal Auditor	Oliver Moore
Address	Level 15, 309 Kent Street, Sydney NSW 2000
Email Address	oliver.moore@erm.com
Auditor Certification (if relevant)	N/A
Date	17/06/2019

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## EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an Independent Environmental Audit (IEA) of the Rocglen Mine. The mine is located 28km north of Gunnedah on the Wean Road, on behalf of Whitehaven Coal (herein referred to as Whitehaven Coal). The primary purpose of the audit was to satisfy the Department of Planning and Environment (DP&E) Ministers' Conditions of Approval (MCoA) Development Consent number DA 10\_0015, which requires completion of an independent audit every three years from the date of the approval. The audit period assessed in this IEA is 24 March 2016 through 21 February 2019 (the date of the site visit completed as part of the audit).

The audit included a review of:

- DP&I, Ministers Conditions of Approval DA 10\_0015 (Modification 4) issued October 2018;
- Environmental Protection Licence (EPL 12870);
- Mining Leases 1620 and 1662;
- Water Access Licence 29461 and 36758; and
- implementation of Management Plans developed as part of the Ministers Conditions of Approval.

Whitehaven Coal has established the control systems generally required for the stage of development i.e. operation near end of mine life. All staff interviewed demonstrated an understanding of requirements and a commitment to the application of the requisite management systems and plans.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the Department of Planning & Environment publication "Independent Audit Guidelines" issued October 2015. The number of non-conformances with the statutory conditions and implementation of the management plans is summarised in Table E1 below.

**Table E0-1 Summary of Audit Findings**

Review	Non-compliances	Administrative non-compliance	Observations (C)	Observations (ANC and NC)
<b>Statutory Instruments</b>	16 (Low)	11	22	12
<b>Implementation of Plans</b>	8 (Low)	2	4	2

*\*Of the 24 non-compliance findings eight are duplicated findings*

An action table addressing all findings of the audit has been developed by Whitehaven Coal and will be issued separately to this report.

## 1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform an Independent Environmental Audit (IEA) of the Rocglen Mine on behalf of Whitehaven Coal (herein referred to as Whitehaven Coal). The primary purpose of the audit was to satisfy the Department of Planning and Environment (DP&E) Ministers' Conditions of Approval (MCoA) Development Consent number DA 10\_0015, which requires completion of an independent audit every three years from the date of the approval. The audit period assessed in this IEA is 24 March 2016 through 21 February 2019 (the date of the site visit completed as part of the audit). The audit must:

- a. be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary of the DP&E;
- b. include consultation with the relevant agencies;
- c. assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
- d. review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
- e. recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.

The Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. It is noted that a request for extension was submitted by ERM to the DP&E, requesting the submission date being extended to 26 April 2019 (see Appendix B for correspondence).

### 1.2 Mine History and Approvals

The mine was initially approved on the 15th April 2008 under PA 06\_0198 with a minor modification (PA 06\_0198 MOD 1) granted in May 2010 to address highwall stability issues. An independent audit was completed in May 2011 in accordance with Condition 6 of Schedule 5 of the original PA.

Whitehaven submitted a Project Application, and accompanying Environmental Assessment, under Part 3A of the *Environmental Planning and Assessment Act 1979 (EP&A Act)* in March 2010 (Rocglen Mine Extension Project). PA 10\_0015 was issued on 27 September 2011 and allows for additional extraction of up to 5 million tonnes of coal at a maximum recovery rate of 1.5 million tonnes per annum (Mtpa) (i.e. increased projected life of the operation for coal extraction by up to four years).

A minor modification (PA 10\_0015 MOD 1) was approved on 10 November 2014 relating to coal transport, and a further modification (PA 10\_0015 MOD 2) was approved on 24 August 2015 allowing changes to coal reject haulage to the site.

Two additional modifications (PA 10\_0015 MOD 3 and MOD 4) were approved in 2017 and October 2018 respectively both related to road haulage.

### 1.3 Overview of Operations

The Rocglen Coal Mine lies within the mining leases (MLs) 1620 and 1662. Rocglen Coal Mine is wholly owned and managed by Whitehaven Coal.

ML 1620 was issued for the Rocglen operation in June 2008 and coal production commenced in late 2008. Approximately 1.5 Mtpa of run-of-mine (ROM) coal is approved to be mined within the open cut pit using truck and shovel method. The coal is transported approximately 30 kilometres by road to the Whitehaven Coal Handling and Preparation Plant (CHPP) for selective washing and subsequent transport by rail to the Port of Newcastle or by road to domestic customers.

ML 1662 was issued on 9 January 2012 to cover the Rocglen Coal Mine Extension Project, specifically the water management and overburden emplacement activities proposed to occur outside the bounds of ML 1620.

### **1.3.1 Description of primary processes undertaken during the audit period**

Current activities at the site include the following:

#### **1.3.1.1 Mining Operations**

The site is extracting coal from the last approved portion of the site, with mining expected to conclude in mid-2019. Upon completion of active mining, the site activities will focus on rehabilitation.

The site has a functioning workshop, site office, and numerous water management dams. Extracted material is transported to an off-site Coal Handling and Preparation Plant (CHPP). At the time of the site audit water was being imported to site from the Canyon Mining Void, for use in mining activities.

The Rocglen mine site has approval to operate 24 hours a day, however given the site is in final stages of mining, the site currently operates over two shifts, being 7am – 5pm and 4:40pm -2:40am, five days a week.

Wastes produced at the site include:

- general domestic wastes from on-site buildings and routine maintenance;
- oils and other hydrocarbons; and
- steel/scrap metal. Waste is segregated and stored at the various construction areas and is managed by a third party licenced contractor.

## **1.4 Audit Objectives**

The primary objectives of the audit included:

- assessment of the environmental performance of the site, and its effects on the surrounding environment and sensitive receivers;
- assessment of whether the site is complying with the requirements in the MCoA, and any other relevant consents/approvals (including any assessment, plan or program required under these consents/approvals);
- review of the adequacy of any approved strategy, plan, or program required under the abovementioned consents/approvals; and
- recommendation of measures or actions to improve the environmental performance of the Rocglen Mine, and/or any strategy/plan/program required under these consents/approvals.

## **1.5 Audit Scope**

The scope of works in order to complete the audit includes the following:

- the audit to be carried out in accordance with AS/NZS ISO 19011:2003: Guidelines for quality and/or environmental management systems auditing;
- review of compliance against the documentation identified in Schedule 2 Condition 2 (as it relates to the current activities at the Rocglen Mine) which included;
  - document review of compliance against the MCoA;
  - a site inspection to assess compliance against field based MCoA;
  - review of supporting plans developed as part of the Consent Conditions and assessment of their adequacy towards effective environmental performance;

- draft report with results of compliance assessment; issued for comment to Whitehaven Coal; and
- a final report issued for submission to the DP&E.

The audit covers the period 24 March 2016 through 21 February 2019 (the date of the site visit completed as part of the audit) and is limited to assessing the activities completed during the audit period.

## 1.6 Audit Criteria

The audit covered the following specifications and standards, with a particular focus on activities associated with the current stages of operation. The documents relevant to this audit included:

- DP&E, MCoA for PA 10\_0015 issued October 2018 (Modification 4);
- Mining Leases 1620 and 1662;
- Environment Protection Licence (EPL) 12870;
- Water Access Licences 36758 and 29461;
- implementation of Management Plans developed as Part of the MCoA including:
  - Mining Operations Plan (MOP) for Period November 2015 to October 2020 (dated 10 November 2016);
  - Environment Management Strategy (EMS) (Edition 2, Revision 4 dated May 2018);
  - Air Quality and Greenhouse Gas (GHG) Management Plan (Edition 2, Rev 4 dated May 2018);
  - Blast Management Plan (BMP) (Edition 2, Revision 4 dated May 2018);
  - Heritage Management Plan (Edition 2, Rev 4 dated May 2018);
  - Noise Management Plan (Edition 3, Rev 4 dated May 2018);
  - Rehabilitation Management Plan (RMP) (Edition 1, Rev 1 issued April 2013);
  - Road Traffic Noise Management Plan (Edition 3, Revision 3 dated May 2018); and
  - Water Management Plan (WMP) (Edition 1, Revision 4 dated May 2018).
- monitoring results and trends;
- comparison of monitoring results against regulatory limits and MCoA limits (where applicable);
- community complaints with review completed for any trends and identifying the source of an established trend;
- confirmation if any additional monitoring required for identified trends;
- regulatory actions including any letters, penalty notices and prosecutions; and
- review of previous audit report to verify close-out of actions.

## 1.7 Limitations of this Report

This disclaimer, together with any limitations specified in the report, applies to this report and its use.

This report was prepared in accordance with the contracted scope of services for the specific purpose stated and subject to the applicable cost, time and other constraints. In preparing this report, ERM relied on:

- a. client/third party information which was not verified by ERM except to the extent required by the scope of services, and ERM do not accept responsibility for omissions or inaccuracies in the client/third party information; and
- b. information taken at or under the particular times and conditions specified, and ERM do not accept responsibility for any subsequent changes.

This report has been prepared solely for use by, and is confidential to, the client and ERM accepts no responsibility for its use by other persons. This report is subject to copyright protection and the copyright owner reserves its rights. This report does not constitute legal or financial advice.

## 2. AUDIT METHODOLOGY

### 2.1 Methodology and Process

The audit comprised a site inspection, interviews with key personnel and review of records and other related documentation over the period 18 – 21 February 2019.

The audit process included the following primary components:

- development of a Terms of Reference developed which included:
  - audit scope and objectives;
  - date and location of audit;
  - members of audit team;
  - list of people to be audited; and
  - list of reference documents and audit criteria.
- a project inception meeting was held in January 2019 to confirm details of the Terms of Reference, site inspection logistics and request for documentation required prior to the site inspection component of the audit;
- an opening meeting was held on 18 February 2019 at site to confirm the audit objectives and scope for the site inspection. Attendees included:
  - Oliver Moore (ERM Lead Auditor);
  - Tim Haydon (ERM Support Auditor and Water Specialist);
  - Emily Clements (Graduate Environmental Officer);
  - Andrew Raal (Environmental Officer);
  - Matt Sparkes (Operations Manager); and
  - Tony Dwyer (Group Manager – Approvals and Environment).

### 2.2 Agency and Community Consultation

ERM consulted with the agencies and stakeholders as required including Department of Planning and Environment (DP&E), Office of Environment and Heritage, Department of Primary Industries (DPI), CCC, New South Wales Environment Protection Authority (NSW EPA), the Compliance Team at DP&E and Narrabri Council. Emails were issued on 4 February 2019 and responses are outlined in *Table 2.1*.

**Table 2-1 Agency and Stakeholder Consultation Summary**

Agency / Stakeholder	Method	Consultation summary	Response	Location Addressed in Report
Department of Planning and Environment (DP&E)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	<p>DP&amp;E suggested the following Areas of Interest for Rocglen Mine:</p> <ul style="list-style-type: none"> <li>■ Water Management</li> <li>■ Biodiversity Management</li> <li>■ Rehabilitation</li> <li>■ All management plans</li> <li>■ Environmental monitoring</li> </ul>	<p>1. Water management</p> <p>a. As per statements in Table 3.1 - a water balance is not currently reported in the AEMR. Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance. Water is being sourced from the Canyon void to supply current activities at Rocglen due to deficiency created by drought conditions.</p> <p>2. Biodiversity management</p> <p>a. Condition of Approval 3.23 in Appendix A details the offset security.</p> <p>b. EPBC compliance reporting available on the WHC website demonstrates that WHC is compliant with relevant conditions that are active. AEMR provides summary on Biodiversity offset area management from surveys undertaken. Additional revegetation activities have been undertaken during the audit period, habitat structures were created, weed and feral animal controls. Monitoring of specific items such as species richness, canopy cover, and targeted bird surveys have been undertaken as required</p> <p>3. Rehabilitation</p> <p>a. a. DPE identified an area of interest as 'Actual rehabilitation compared to EIS predictions'. Rehabilitation proposed is outlined Section 7 of the MOP, Rehabilitation status is outlined in Section 8 of the AEMRs and is discussed against condition 3.34 in Appendix A. The mining operation will soon be complete and the focus will turn to decommissioning and rehabilitation activities. Rehabilitation success has been hindered by the drought and the auditor recommended a replanting plan to address rehabilitation failures. Rework is required to ensure that the landform on the western side of the mine is at the required grade, as currently the landform is too steep. Two basins will remain at the base of the void to capture any inflowing runoff from the void catchment area. Final shaping will commence upon completion of mining activities in mid-2019.</p> <p>b. Rehabilitation monitoring (flora and fauna monitoring was undertaken in 2017. Prior to this there may have been deficiencies in flora and fauna monitoring. There is a two year monitoring commitment in the rehabilitation management plan that must be met.</p>

				<p>4. All management plans</p> <p>a. Section 3.5 – Management Plan Adequacy provides detail on review and adequacy of management plans undertaken in this audit. Table 3.1 provides a review of management plans undertaken during the audit.</p> <p>b. Consultation with agencies and stakeholders was not undertaken for the review of the management plans reviewed by the auditor. Future reviews are to include consult with relevant agencies.</p> <p>5. Environmental monitoring</p> <p>c. a. Monitoring equipment was considered compliant with Approved methods for sampling of air pollutants in New South Wales with monitoring of dust in accordance with AM-19 (DDGs), AM-18 (HVAS) and AM-22 (TEOM), which are all approved methods (see Appendix A - EPL – M3.1).</p>
Department of Industry – Crown Lands and Water	Email on 4 February 2019	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response	Not Applicable (N/A)
Office of Environment and Heritage	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A
Department of Primary Industries (DPI)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A
New South Wales Environment Protection Authority (NSW EPA)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A

Mineral Resources (MineRes)	Email on 4 February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A
Compliance Team – DP&E	February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	Captured in response from DP&E above.	As per response to DP&E
Gunnedah Shire Council	February 2019.	Provision of Audit Terms of Reference, introduction to team, outline date of audit and provide opportunity to comment.	No response.	N/A

In each case, an email was sent to representatives of each agency requesting feedback on those issues considered most relevant by their Department at the time of the audit. The consultation outlining the terms of reference was provided prior to the site inspection to obtain feedback and draw attention to any key issues, within the agreed scope of the audit. The Departmental correspondence is provided in *Appendix B*.

Responses received required the audit to focus on compliance against CoA as well as water management, biodiversity management, rehabilitation, management plans and environmental monitoring. These areas are captured in the audit findings.

## 2.3 Classification of Audit Findings

Findings resulting from an assessment of audit evidence were divided into six categories as follows:

- **Compliant (C):** the intent and all elements of the audit criteria requirements have been complied with within the scope of the audit.
- **Not Verified (NV):** insufficient verifiable evidence to demonstrate that the intent and all elements of the audit criteria have been complied with within the scope of the audit.
- **Non-compliant (NC):** Failure to meet the audit requirements, failure to achieve the field performance outcomes identified in documentation, or ineffective environmental management of the activity.
- **Administrative Non-compliance (ANC):** technical conformance with audit requirements that would not impact on performance and is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
- **Observation (O):** Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance.
- **Not Triggered (NT)** – A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, and therefore a determination of compliance could not be made.
- **Note:** A statement or fact, where no assessment of compliance is required.

A qualitative risk assessment was also completed on the findings, consistent with AS/NZS 4360:2004 Risk management and HB 436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004 and as described in the DP&E publication “Independent Audit Guidelines” issued October 2015.

The overall level of risk was estimated by combining the likelihood of harm occurring with the estimated level of harm associated with each finding. Risk levels have been assigned as follows:

- **High:** Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence;
- **Medium:** Non-compliance with:
  - potential for serious environmental consequences, but is unlikely to occur; or
  - potential for moderate environmental consequences, but is likely to occur;
- **Low:** Non-compliance with:
  - potential for moderate environmental consequences, but is unlikely to occur; or
  - potential for low environmental consequences, but is likely to occur

Administrative non-compliance: Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

### 3. AUDIT FINDINGS

#### 3.1 Previous Audit Follow Up

A summary of the previous audit (2016) findings and their current status is summarised below in *Table 3.1*. Further commentary on current status is provided in Appendix A.

**Table 3-1: Summary of Previous Audit Findings (2016)**

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
<i>Minister's Conditions of Approval 10_0015</i>					
2.7	By the end of September 2012, or as otherwise agreed by the Secretary, the Proponent shall surrender the existing project approval for the Rocglen Coal Mine (06_0198) in accordance with section 75YA of the EP&A Act.	Letter to DP&I formally requesting surrender in September 2012.  Email received from DP&I October 2012 requesting confirmation of land ownership with approval from the landholder required consenting to the surrender. No further actions have been completed and therefore the surrender of this approval has not been completed.	ANC	Assessment of additional PA 06_198 conditions has been completed in lieu of this approval being surrendered.  WHC has undertaken all measures to surrender PA 06_198 that are within its management control; progression of process is dependent upon Gunnedah Shire council as a landholder.	ANC
3.5	The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 3.  However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.	5% of 115dB criteria was exceeded 18 September 2014 but was not identified in the 2014 AEMR report. However, it was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months.	NC	No further actions recommended. Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.  The auditor considers this to be an ANC given this was reported elsewhere and no environmental harm generated.	ANC
3.15	The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the project do not exceed the criteria listed in Tables 4, 5 and 6 at any residence on privately-owned land or on more than 25 percent of any privately- owned land.	Review of results indicate location BD2A (Penryn) and BD8 (Yarrowonga) are over the 12 month rolling average. Note that the Yarrowonga property is owned by the mine.  BD8 had one high reading (115.6g/m2/month for December 2014) which skews the 12 month average for period December 2014 to November 2015. The ash content was 99% therefore the insoluble solids consisted mainly of inorganic material such as sand and dirt. Red sandy material was noted in the jar during collection and is not considered to be related to the Rocglen Mine.  BD2A had three high readings early 2015 (13.1, 61.3 and 6.1g/m2/month) with the annual average exceeded over the period February 2015 to January 2016 as a result of the three elevated readings. The ash content consisted of between 76% and 93% of insoluble solids indicating it consisted of primarily inorganic content i.e. sand, dirt.  HVAS indicates two 24-hour exceedances for the Glenroc location on 29/12/2013 and 16/01/2014.  The 24hr average from the TEOM is not currently tracked or entered into an Excel spreadsheet for reporting purposes against the criteria as it is used as a management tool only. The results are summarised and reported in the EPL Annual Returns	NC	Consider calculating the rolling 12-month average for the dust gauges to enable identification of any annual average exceedances.  Consider reviewing the 24 hour result for the TEOM (the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and entering into Excel spreadsheet. These results can then be reviewed against the criteria and investigated if over criteria (already reported in the EPL Annual Returns as an average and maximum). Results from other Whitehaven Coal sites in the area and the EPA Tamworth air quality monitoring station can also be utilised to determine if the impacts are regional or mine related.  The AEMR should also report the maximum daily results from the TEOM for comparison to the 24hour criteria rather than using monthly averages which is not a recognised averaging timeframe in the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)).	C

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
3.27	<p>The Proponent shall prepare and implement a traffic management plan for the Project, to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with RMS, Gunnedah Shire Council, Narrabri Shire Council, and the owners of the Tarrawonga and Vickery coal mines;</p> <p>(b) be submitted to the Secretary for approval, by 30 June 2015;</p> <p>(c) include:</p> <ul style="list-style-type: none"> <li>■ a protocol for operating haul trucks during school bus hours;</li> <li>■ a protocol for maximising the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP;</li> <li>■ consideration of measures to minimise dust from unsealed roads that may be used for access to the mine site;</li> <li>■ arrangements to comply with cumulative coal haulage limits from the Project and the Tarrawonga and Vickery coal mines; and</li> <li>■ a monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA.</li> </ul>	<p>Operational/economic drivers ensure the backfilling of haul trucks with coarse and/or fine rejects occurs however, it is not described in Section 3 of the Plan with other mitigants/measures.</p> <p>Arrangements to comply with cumulative coal haulage limits are not currently included in this plan. The cumulative volumes are currently tracked by the logistics manager.</p> <p>A monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA is also not included in the plan.</p>	ANC	<p>Consider including following in the Road Traffic Noise Management Plan:</p> <ul style="list-style-type: none"> <li>■ protocol for maximising the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP</li> <li>■ arrangements to comply with cumulative coal haulage limits</li> <li>■ description of a monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA</li> </ul>	O(Compliant)
3.31	<p>The Proponent shall:</p> <p>(c) ensure that no outdoor lights shine above the horizontal; and</p>	<p>A light stand was noted during the site inspection at the western emplacement lookout area, which appeared to shine across the valley to Belmont – site inspection at night-time confirmed light is shining directly across the valley i.e. above the horizontal.</p>	NC	<p>A lighting audit was completed by MIDAS in 2017 and due consideration given to lighting.</p>	C
4.2	<p>As soon as practicable after obtaining monitoring results showing:</p> <p>(a) an exceedance of the relevant criteria in Schedule 3, the Proponent shall notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and</p> <p>(b) an exceedance of the relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including tenants of any mine-owned land).</p>	<p>Review of the DDG results indicate some exceedances of the rolling 12-month average for two sampling locations, which have not been reported to the landholder.</p> <p>HVAS indicates two 24-hour exceedances for the Glenroc location on 29/12/2013 and 16/01/2014.</p>	NC	<p>Consider reporting all exceedances of criteria to the affected landholder to fulfil the requirement of this MCoA.</p> <p>Consider reviewing the 24 hour result for the TEOM (the TEOM is accepted under the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2007)) and entering into results Excel spreadsheet.</p> <p>The Annual Review should also report the maximum daily results for comparison to the 24-hour criteria rather than using monthly averages.</p>	C
5.2	<p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p>	<p>Baseline data is not included in all plans.</p>	ANC	<p>Consider including the air quality, noise and traffic noise baseline levels determined during the assessment phase of the project into the relevant management plans.</p>	C
5.3	<p>By the end of each December, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p>	<p>Although the previous monitoring results are included as graphs in the report for air quality, discussion on previous results and trends in data over the life of the project is not included for water, groundwater, noise and road noise.</p>	ANC	<p>Consider inclusion of further discussion into the next Annual Review on any previous results and trends observed in monitoring over the life of the project for all monitored aspects such as noise, road noise, water and groundwater.</p>	C
5.4	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under condition 3 above;</p> <p>(b) the submission of an incident report under condition 6 below;</p> <p>(c) the submission of an audit report under condition 8 below; and</p> <p>(d) any modification to the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.</p>	<p>Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.</p>	ANC	<p>Consider the creation of a spreadsheet with plan review tables and update reviews completed even if no changes are required to the plans.</p>	C

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
5.6	As soon as is practicable after the Proponent becomes aware of any incident associated with the project, the Proponent shall notify the Secretary and any other relevant agencies of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.	Two surface water monitoring events were missed on 19 October 2014 and 18-23 October 2014 – the written report was provided to the EPA on 11 May 2015 (7 days after occurrence). One incident reported during the audit period (5% of 115dB was exceeded 18 September 2014) through reporting for the EPL (7 days after occurrence). The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.	NC	Consider reviewing compliance tracking procedures/methods to improve reporting times.	C
<i>Minister's Conditions of Approval 06_0198</i>					
3.18	During mining operations on site, the Proponent shall:  (c) advertise the blasting hotline number in a local newspaper each year; and	A blasting hotline is not currently maintained however, a public enquiry/complaints line is advertised on signs on Wean Rd and on the website.  The blasting hotline number/complaints number is not currently advertised in local newspapers each year. Previous audit report noted this action was completed at that time.	ANC	The auditor considers the website addresses intent of communication related to notification of the hotline number.	C
3.37	The Proponent shall keep records of the amount of coal transported from the mine site, and number of coal truck movements each year, and include these records in the AEMR.	Records of coal movements are kept on the website.  AEMRs provide an annual summary of total output and movement of coal to the CHPP but do not include number of truck movements.	ANC	Truck movements are considered in the Annual Reviews.	C
<i>Statement of Commitments</i>					
b	Within 12 months of approval, Whitehaven will review, update and integrate relevant aspects of the environmental monitoring of the Project in the existing set of environmental monitoring programs for the Rocglen Coal Mine. This will be undertaken in consultation with the relevant government agencies.	Government agencies not consulted as part of update of latest update of plans in November 2015. The previous audit report notes that the relevant agencies were consulted for the plans submitted prior to end December 2011.  Changes were mostly administrative and requirements have not changed substantially.	ANC	Consider sending link to plans on website to relevant agencies and requesting comment.	C
g	Prior to re-spreading stockpiled material onto completed mining or overburden emplacement areas, an assessment of weed infestation on stockpiles will be undertaken to determine if individual stockpiles require herbicide application and/or 'scalping' of weed species prior to spreading.	The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation is included in the record with the exception of who has applied the pesticide/herbicide.	ANC	Names of person/company applying the pesticide are maintained.	C
g	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and 3 square metres (m <sup>2</sup> ), respectively. Rock-lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site.	The northern emplacement area consists of banks which divert water to an eastern and western rock lined channel. The eastern channel has recently been installed and it is noted that there is an erosion channel forming alongside (northern edge).  Tunnel erosion near the western channel has recently been repaired however it is noted that water is ponding in this area.	NC	Consider diverting water to the newly constructed eastern channel in the northern emplacement area to prevent further scouring alongside this channel. In addition, consider installing a batter shoot where water is ponding in the recently repaired tunnel erosion area or complete works to divert water to the rock lined drain on the western face of the northern emplacement area.	O (Non-compliant)
c	Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics	Individual pieces of equipment do not currently have sound power levels checked to confirm within specifications and consistent with previous assessments undertaken by Spectrum Acoustics prior to being brought on site.	NC	Consider the requirement to test equipment prior to being brought on site. Consider developing a list of equipment and their sound power levels (design and measured) with comparison to previous assessments as a record of conformance.	C
g	Mid-high frequency broadband reverse beepers are fitted to on-site mobile mining equipment	Not all equipment is fitted with mid-high frequency reverse beepers.	NC	The auditor understands all mobile mining equipment has been fitted with mid-high frequency reverse beepers.	C

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j	For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures typically occur for a period of up to 10 minutes.	The boards are in place but are not currently used as intended. Sentries are placed along road to prevent use of the road by traffic during blasting.	NC	Consider using the blast notice boards prior to blasting.	C
n	Whitehaven will erect a blast notice board near the mine entrance on Wean Road notifying passing motorists when the next blast is scheduled.	The boards are in place but are not currently used as intended. Sentries are placed along road to prevent use of the road by traffic during blasting.	NC Duplicated SoC	Duplicated finding	C
g	As required, appropriate drainage structures and erosion and sediment controls will be installed and maintained.	Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas. Some scouring and erosion was noted in the newer areas of rehabilitation in the northern emplacement area.	NC	Consider removing erosion and sediment control structures that are damaged/no longer required. Consider installing additional controls where erosion is evident to prevent the need for extensive rework/repairs.  The auditor notes some bunds on northern emplacement have been reworked/repared to address this condition.	O (Compliant)
p	Implementation of an effective revegetation, maintenance and monitoring program.	Site inspection indicates mixed success with rehabilitation. The northern emplacement area (designated) pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weeds.  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeding/replanting.	NC	Continue to investigate alternative rehabilitation methods to increase success.  The auditor notes, a number of rehabilitation methods were trialled last year at Rocglen. As part of investigating alternative methods the Rocglen Environmental representative visited other WHC sites to investigate rehabilitation methods that might be suitable. Further there were efforts made for re planting on the northern face utilising improved tree planting methods from lessons from biodiversity team. In addition soil sampling was conducted to investigate improving soil quality.	O (Compliant)
i	Monitoring of groundwater levels will initially be undertaken on a monthly basis for the first year of the Project, after which the interval may potentially be relaxed subject to review of the results. In the longer term a monitoring interval of three months is anticipated. Samples will be analysed for all major ions, including carbonate.	Groundwater is monitored every three months. Review of the AEMR 2011-12 indicates groundwater monitoring frequency was quarterly.	NC	Monitoring of groundwater levels was not completed initially monthly for the first 12 months of the Project. No further actions are recommended.  This is considered a legacy ANC.	ANC
j	Pressure transducers/data loggers will be installed in monitoring bores MP-01 to MP-05 for the continual recording of groundwater levels. These instruments will be downloaded every 2 months. MP-04 and MP-05 will be deepened to at least 10 metres below the water table.	The data is downloaded by the Environment Officer – last downloaded for reporting into the AEMR.	ANC	Consider downloading data every two months as stated in the commitment.	O (Compliant)
i	A tree felling protocol will be developed, by a suitably qualified and licensed ecologist with previous experience supervising the felling of trees, in order to minimise harm to fauna species during clearing activities.	Clearing and Pre-strip Procedure includes operational aspects to felling trees. A tree felling protocol has not been formally developed.	ANC	It is noted clearing considerations are included in the Land Disturbance Protocol template for Rocglen that address this condition.	C
f	In areas where surface excavation might occur in the future within 25 metres of the east-west oriented drainage line, Whitehaven will follow protocols in Section 4.1(iii) of the ACHMP (Whitehaven 2008c).	This commitment is not currently included in the latest version of the Heritage Management Plan	NC	Complete a review of historical documentation and assess if this commitment is still relevant to stage of works and action accordingly.	C

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e	An earthen bund of appropriate height will be established between the realigned Wean Road and the active pit area. This bund will be vegetated immediately following construction. The bund will provide an effective visual screen of the site from Wean Road. In addition to the bund, a strip of bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road.	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area.  Bushland will be established once operations have finished in three years.	NC	Consider installing bund along Wean Rd to provide a visual screen. Vegetation will be established during pending closure planning.	O (Non-Compliant)
f	The requirements of the Australian Standard AS 4282 199 7 – Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours. In particular, lighting plant will be positioned and directed away from surrounding residences and aimed downwards to avoid light spill onto adjoining lands and public roads	A light stand was noted at western emplacement lookout area which appears to shine across the valley to Belmont – site inspection at night time confirms light is shining directly across the valley i.e. above the horizontal.	NC Duplicated with MCoA 3.31	A Lighting audit was completed by MIDAS in 2017 and due consideration given to lighting.	C
b	Whitehaven will respond to any community complaints within 24 hours of receipt. All complaints will be investigated and the results of the investigation reported to the complainant in a timely manner.	Review of complaints indicates date/time of complaint is recorded. The date/time of responses is not recorded therefore assessment against this commitment cannot be completed.	ANC	Consider including date/timeline of response to any complaints so that assessment against this commitment can be completed.	ANC
<b>ML1620</b>					
b	<b>Blast Overpressure</b> The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Climate Change.	Refer Condition L5.1 EPL 12870	NC Duplicated with EPL L5.1	Refer Condition L5.1 EPL 12870	NC
<b>ML1662</b>					
5	The lease holder must report any environmental incidents. The report must:  (i) be prepared according to any relevant Departmental guidelines;  (ii) be submitted within 24 hours of the environmental incident occurring	2014/15: exceedance of 5% of blasts above 115 dBL. Reporting of the incident was undertaken to the DP&E and EPA.	NC	Consider the review of compliance tracking and reporting procedures to ensure DRE is informed of any environmental incidents.	C
<b>EPL12870</b>					
P1.3 (Note that in new licence this condition is P1.2)	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	Controlled discharges have not been reported in the EPL Annual Returns however the EPL list monitoring points as follows:  ■ Wet weather discharge ■ Discharge water quality monitoring  Frequency is within 12 hours of a discharge occurring.	NC	Consider including in a separate file of all discharges from the licensed discharge points and report both active and passive discharges (both points are included in EPL as discharge points)	C
L5.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded	Two blasts during the 2014/15 period exceeded the 115dB limit, with results of 116.1dB on the 5th September 2014 and 115.7dB on the 18th September 2014. Both of these results were recorded at "Roseberry", and made up 6.7% of all blasts undertaken for the period. This was not picked up in the AEMR however was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months. It has since been determined that the Roseberry residence is under private agreement for all affectation with subsequent discussions with the EPA indicating this monitoring point will be moved to the next nearest private residence and the EPL amended accordingly.	NC Duplicated with ML1602 (15(b))	The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.	C

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	HVAS results indicate two exceedances during the reporting period against the 24hour criteria for PM10 – these were not reported at the time of occurrence but are reported in the Annual Returns	NC	Consider reporting any exceedance of the MCoA criteria to the EPA as soon as practicable (the results are currently reported in the Annual Return)	C
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.	Date and point of sampling included in water sampling and HVAS spreadsheets.  The time the sample was taken and the sampler name is not included.	ANC	Chain of custody records provided for review and demonstrate compliance with this condition.	C
M2.2	Air Monitoring Requirements Point 4,6,7 – dust Point 10 – PM10 (HVAS) Point 17 – PM10 (real time)	A monitoring event was missed in October 2014 at EPL ID 10 and 17 with indication it would be included in the EPL Annual Return. This was notified to EPA 11 May 2015.  Email from ALS notifying of missed sampling event for Costa Vale for the 17/01/2015 sampling round (informed Whitehaven Coal staff 21/01/2015).  All missed sampling events are from power failures/trips of equipment.	NC	Two sampling events were missed for the HVAS – no further actions are proposed.  This is considered to be a Legacy NC.	NC
M2.4	For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.	The results do not include time of sampling and confirmation sample was taken within 12 hours of discharge.  Spreadsheet includes wet weather discharges – controlled discharges are not included.	ANC	WHC has updated the spreadsheet to include a column in monitoring sheet to confirm sampling has occurred within 12 hours.	C
M2.5	For the purposes of the table(s) above Special Frequency 2 means the collection of samples quarterly (in the event of a flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.	The results do not include time of sampling and confirmation sample was taken within 12 hours of discharge.	ANC	WHC has updated the spreadsheet to include a column in monitoring sheet to confirm sampling has occurred within 12 hours.	C
M7.3	For the purpose of condition M8.1, the noise monitoring locations are described as: N1 (Retreat), N2 (Surrey) and N3 (portable meter)	Monitoring at N1 and N2 completed.  No results are available for the portable meter as N3 is not currently used.	NC	The EPL lists N3 as a monitoring location and therefore monitoring should be completed at this location. Alternatively consider submitting an amendment to the EPL to reflect actual monitoring locations if N3 is not considered necessary to confirm compliance with noise limits.	Condition doesn't exist in revised EPL
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred	Incident reports do not record time of initial notification to the EPA.  Two additional reports were completed for elevated TSS in water discharges but occurred after 5 days of 90%tile rainfall and where therefore not exceedances. The date of submission of the report to EPA is not known, as correspondence was not sighted.  Two surface water monitoring events were missed on 19 October 2014 and 18-23 October 2014 – the written report was provided to the EPA on 11 May 2015.  One incident reported during the audit period (5% of 115dB was exceeded 18 September 2014) through reporting for the EPL. The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.	NC Duplicated with MCoA 5.6	Consider reviewing compliance tracking procedures/methods to improve reporting times.	C

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<i>Water Access Licence 29461</i>					
MW0635-00001	The licence holder must record the following in the logbook: (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	Logbook not currently maintained however an excel sheet is kept recording usage to confirm maximum extraction volumes are not exceeded.	NC	Consider amending the existing Water Meter Reading Excel spreadsheet to include volume of water extracted against the maximum volume allowed.  Legacy condition, however the observation remains.	O (Non-Compliant)
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date.	Logbooks not currently maintained. Excel sheet logs date and meter reading.	NC Duplicated with MW0635-00001 and MW0632-00001	Consider amending the existing Water Meter Reading Excel spreadsheet to include all requirements.	ANC
MW0632-00001	The licence holder must keep a logbook, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	Logbook not currently maintained however an excel sheet is kept recording usage to confirm maximum extraction volumes are not exceeded.	Duplicated with MW0635-00001 and MW0633-00001	Consider amending the existing Water Meter Reading Excel spreadsheet to include all logbook requirements.	ANC
MW0831-00001	The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence.  Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.	As the requirement to maintain a logbook has not been met the Minister should be notified.	NC	Consider notifying the Minister for DPI Water regarding the non-maintenance of a logbook for the pumping wells with an estimated timeframe when the condition can be met.	C
<i>Mining Operations Plan</i>					
	<ul style="list-style-type: none"> <li>■ All efforts will be made to avoid disturbance of the vegetation communities within Rocglen and to maintain and enhance as much of the existing remnant vegetation on-site as possible.</li> <li>■ The minimal practicable amount of clearing will be undertaken as a general objective, particularly within those areas that currently contain identified threatened species or ecological communities.</li> <li>■ Weed control practices will be implemented to minimise the spread of exotic species.</li> <li>■ A tree felling protocol will be implemented in order to minimise harm to fauna species during clearing activities.</li> <li>■ Where possible, tree felling will be supervised by a suitably qualified and experienced ecologist.</li> <li>■ Where trees are to be removed an assessment of the surrounding level of tree hollow provision will be undertaken by a suitably qualified and experienced ecologist in order to determine the need for local supplementing of tree hollows (using salvaged tree hollows or nest boxes).</li> <li>■ Mature and hollow-bearing trees will be retained wherever feasible within the site.</li> <li>■ Vegetation to be removed will be clearly marked in the field using temporary fencing (flagging tape or similar) so that the boundaries are clearly established and to minimise the potential for equipment to accidentally enter areas to be retained.</li> <li>■ Regular monitoring of the vegetation within Rocglen will be undertaken in order to enable effective management with regards to rehabilitation (planting), regeneration, watering, fencing and weed control.</li> <li>■ Specialist ecologists will be engaged to conduct pre-clearing inspections for fauna impact mitigation, as required.</li> </ul>	<p>Areas not impacted by mining are fenced to prevent entry.</p> <p>Monthly Inspections are completed by the Environment Officer.</p> <p>Procedure includes operational aspects to felling trees.</p> <p>Unclear if tree felling protocol has been developed.</p> <p>Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.</p> <p>Clearing along old Wean Rd alignment to still occur.</p>	ANC Duplicated with SoC	It is noted clearing considerations are included in the Land Disturbance Protocol template for Rocglen that address this condition.	C

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
	<p><b>Weed Control</b></p> <ul style="list-style-type: none"> <li>■ Control practices implemented to minimise the spread of weed species will include:</li> <li>■ Campaign weed spraying prior to the stripping of topsoil;</li> <li>■ Equipment coming to site to be clean and free of soil/plant material prior to entry, or subject to clean down at the workshop facilities area;</li> <li>■ Herbicide spraying or scalping weeds off topsoil stockpiles prior to re-spreading; and</li> <li>■ Rehabilitation inspection to identify potential weed infestations.</li> </ul>	<p>Mechanical inspection checklist is completed - MDG15 forms which does not include checks for weeds.</p> <p>Campaign spraying prior to stripping of topsoil does not currently occur.</p> <p>Procedure has been developed for clearing and pre-stripping activities.</p> <p>Monthly environment inspections include checks for weeds in rehabilitated areas.</p> <p>Topsoil shortage on site precludes the practise of scalping.</p>	ANC	Consider including requirement to complete campaign spraying prior to spreading topsoil into existing procedure and include checks for weeds on new equipment to site as part of initial check.	C
	<p><b>Fauna Monitoring</b></p> <p>Fauna monitoring will continue to be undertaken at Rocglen and is currently completed annually by a qualified ecologist with results reported in the AEMR/Annual Review.</p>	<p>Whitehaven engaged RPS Harper Somers O'Sullivan to undertake a Flora and Fauna Assessment to support the application for the Extension Approval.</p> <p>The Rehabilitation Management Plan includes detail on fauna monitoring with fauna monitoring to be undertaken biennially. Fauna monitoring plots were established during spring 2009 in areas adjacent to the site. Fauna monitoring was undertaken in 2010 and then in 2015.</p> <p>Pre clearance fauna inspections were carried out in December 2013 for clearing three scattered trees to the west of the coal haul road from the pit to the ROM area. An inspection was also carried out in July 2014 for clearing several isolated trees in advance of the eastern edge of the western emplacement area, and at the eastern soil stripping area, in advance of the pits movement east between the mine void and Wean Road.</p>	NC	The auditor understands monitoring has been completed and the closure MOP has been submitted to Resources Regulator. Change in monitoring locations and methodology will occur.	C
	<p>A vegetated earthen bund of appropriate height will be maintained between the realigned Wean Road and the active pit area to provide an effective visual screen from Wean Road. In addition, a strip of bushland will be maintained in the post-mining landform to screen the view of the final void and generally improve the visual amenity from Wean Road.</p>	<p>Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area.</p> <p>Bushland will be established once operations have finished in three years.</p>	NC Duplicated with SoC	Consider installing bund along Wean Rd to provide a visual screen. Vegetation will be established during pending closure planning.	O (Non-Compliant)
	<p>The requirements of the Australian Standard AS 4282 1997 – Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours</p>	<p>A light stand was noted at western emplacement lookout area which appears to shine across the valley to Belmont – site inspection at night time confirms light is shining directly across the valley i.e. above the horizontal.</p>	NC Duplicated with MCoA 3.31	A lighting audit was completed by MIDAS in 2017 and due consideration given to lighting.	C
	<p>Results of rehabilitation monitoring will be reported in the AEMR/Annual Review. The AEMR/Annual Review will also discuss rehabilitation performance against key performance measures/indicators, compliance with regulatory requirements and commitments, and identified trends and instances where potential rehabilitation failure has been identified triggering intervention in accordance with a Rehabilitation TARP</p>	<p>Monitoring of rehabilitation is discussed comprehensively in the AEMRs (Section 5) and includes all requirements.</p> <p>TARP is not included in the current version of the Rehabilitation Monitoring Plan.</p>	ANC	The auditor understands this is addressed in the closure MOP which has been submitted to Resources Regulator.	C

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
<i>Environment Management System</i>					
	<p>A publicly advertised telephone complaints line will be in place to receive complaints during operating hours and record complaints at other times.</p> <ul style="list-style-type: none"> <li>■ Each complaint received will be recorded on a Complaints Register, which will include the following details: <ul style="list-style-type: none"> <li>○ The date and time of complaint.</li> <li>○ Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.</li> <li>○ The nature of the complaint.</li> <li>○ The action taken by Whitehaven in relation to the complaint, including any follow-up contact with the complainant.</li> <li>○ If no action was taken by Whitehaven, the reason why no action was taken.</li> </ul> </li> <li>■ The Environmental Officer will be responsible for ensuring that an initial response is provided within 24 hours of receipt of a complaint (except in the event of complaints recorded when the mine is not operational).</li> <li>■ The cause of the complaint and any required remedial actions identified.</li> <li>■ Additional measures will be undertaken as required to address the complaint. This may include visiting the complainant, or inviting the complainant to the mine site.</li> <li>■ Once the identified measures are undertaken, the Environmental Officer will sign off on the relevant complaint within the Complaints Register.</li> <li>■ If necessary, the Environmental Officer will follow-up to confirm the source of the complaint is adequately mitigated.</li> <li>■ A copy of the Complaints Register will be kept by Whitehaven and made available to the CCC and the complainant (on request). A summary of complaints received every 12 months will be provided in the Annual Review.</li> </ul>	<p>Website lists phone number 0428 114 814.</p> <p>Tested number on 4/5/2016 at 13:00 – goes directly to Rocglen Group Superintendent – Environment (Compliance) and is manned while site is operational.</p> <p>Review of complaints indicates all details are maintained with exception of name of complainant due to privacy.</p> <p>Complaints are discussed in the AEMRs.</p>	<p>ANC Duplicated with EPL</p>	<p>Consider maintaining version of complaints register offline which includes name of complainant and address/residence when available</p>	C
	<p>A review of the mine's compliance with all conditions of PA 10_0015 MOD 2, ML 1620, ML 1662, EPL 12870 and all other approvals and licences will be undertaken prior to (and included within) each Annual Review submitted to DPE and DRE. The Annual Review will also be provided to GSC, relevant agencies, the CCC and to the public on Whitehaven's website.</p>	<p>Reviews of compliance against the conditions of the OA, ML, EPLS and other licences and approvals have not been completed in the last AEMR for 2014-15. These were included in Appendix 3 for previous reporting years.</p>	<p>ANC</p>	<p>IEA action summary is provided in the Annual Reviews.</p>	C
<i>Greenhouse Gas Management Plan</i>					
	<p>Parameters Measured</p> <p>Activities on the mine site will emit dust in various forms, namely total suspended particulate matter (TSP), particulate matter with aerodynamic diameters less than 10µm (PM10), and deposited dust (which is assessed as insoluble solids as defined in Australian Standard AS 3580.10.1-2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method).</p> <p>No direct monitoring of TSP is proposed as PM10 concentrations are considered of greater significance given its synergies with health-related issues, however indirect calculation of TSP will be made from PM10 measurements, using a previously determined relationship factor of 2, to determine compliance with Schedule 3 Condition 15 Table 4 of PA 10_0015 MOD 2.</p>	<p>TSP not currently calculated in the HVAS sheet and reported in the AEMRs.</p> <p>Review of HVAS PM10 monitoring results indicates rolling 12 month average of TSP is below the criteria.</p>	<p>ANC</p>	<p>Consider including TSP in the monitoring results Excel spreadsheet using the relationship as described in the plan and report accordingly in the Annual Reviews.</p>	C
	<p>In the event that PM10 levels are determined to be high as a consequence of ambient or other sources, by confirmation from surrounding PM10 networks, the activity log will identify this source, with no specific requirement for Rocglen operations to cease activity</p>	<p>Checklist is completed and identifies if activities are from mining activities. A review of other PM10 monitors is not currently completed as visual review of activities on site has confirmed elevated dust levels are not from site activities.</p>	<p>NC</p>	<p>As PM10 is not visible to the naked eye, consider reviewing surrounding PM10 monitors to confirm alarm is not from site activities (addition on checklist).</p>	C

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	In the event that the PM10 level recorded for a single 24 hour period exceeds 50µg/m3, the Group Manager - Environment will notify the EPA as to the nature of the exceedance(s) and all relevant records of activities and weather conditions during the 24 hour period. A single exceedance may be considered anomalous, however repeated exceedances will require the preparation of a corrective action plan.	<p>Review of HVAS results indicate criteria have been exceeded for following dates:</p> <p>Glenroc (BA1) – 29/12/2013, 16/01/2014. These exceedances were reported in the AEMR but were not reported to the EPA as the EPL does not include specific criteria for air quality.</p> <p>TEOM results not available for review and comparison against criteria. TEOMs are an approved method for assessment of PM10 air quality criteria.</p>	NC Duplicated with EPL O3.1	<p>Consider the reporting of exceedances of the MCoA criteria to the EPA (refer to EPL Condition O3.1).</p> <p>Consider the review and recording of the 24 hour results for PM10 from the TEOM. Any exceedances can be compared to the regional TEOM network to confirm if exceedance is from Mine activities.</p>	C
	In the event that the annual average dust deposition recorded at any off-site monitoring location exceeds 4g/m2/month, or PM10 exceeds 30µg/m3, the Group Manager - Environment will notify the EPA as to the nature of the exceedance(s). In consultation with the EPA, and following further analysis of the results to determine dust composition and review of historical trends over prior annual periods, it will be determined if the annual exceedance is related to mining activities.	<p>DDGs averages are done on a calendar year and the AEMR reports for the 12 months of the AEMR reporting period. Annual averages should be assessed as a rolling 12 month average.</p> <p>Review of results indicate location BD2A (Penryn) and BD8 (Yarrowonga) are over the 12 month rolling average.</p> <p>BD8 had one high reading (115.6g/m2/month for December 2014) which skews the 12 month average for period December 2014 to November 2015.</p> <p>Red sandy material was noted in the jar during collection and is not considered to be related to the Rocglen Mine.</p> <p>Reporting of DDG criteria exceedances of the MCoA are not currently reported to the EPA as the EPL does not list specific air quality criteria however, the EPL does include O3.1 - All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises</p> <p>BD2A had three high readings early 2015 (13.1, 61.3 and 6.1g/m2/month) with the annual average exceeded over the period February 2015 to January 2016 as a result of the three elevated readings. The ash content consisted of between 76% and 93% of insoluble solids indicating it consisted of primarily inorganic content i.e. sand, dirt</p> <p>Review of HVAS results confirms 12 month rolling average below annual MCoA criteria.</p>	NC Duplicated with MCoA 3.15	Consider calculating the rolling 12 month average for the dust gauges to enable identification and reporting of any annual average exceedances as they occur.	C
	In addition, in the event of an exceedance in 24 hour PM10 criteria or the annual average PM10 or dust deposition criteria Schedule 4, Condition 2 of PA 10_0015 MOD 2 requires RCM to notify the affected landowner of an air quality criteria exceedance, and provide regular monitoring results to each of these parties until the project is complying with relevant criteria again.	<p>Air quality results for audit period indicate no exceedances of air quality for the HVAS.</p> <p>Review of the DDG results indicate some exceedances of the rolling 12 month average for two sampling locations which have not been reported to the landholder.</p>	NC Duplicated with MCoA 4.2	Consider reporting all exceedances of criteria to the affected landholder.	C

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<i>Blast Management Plan</i>					
	<p>The limit of open cut mining encroaches within 500 metres of Wean Road in its realigned position. As per the existing 2013 Road Closure Management Plan (originally approved by Gunnedah Shire Council in 2009), the safety of traffic on Wean Road is ensured via the following actions:</p> <ul style="list-style-type: none"> <li>For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures will typically occur for a period of up to 10 minutes;</li> <li>Following the blast, Whitehaven will inspect the road surface and remove any rock fragments from the road surface prior to re-opening; and</li> <li>Whitehaven will monitor the distance flyrock travels (if any) beyond the designed blast envelope and identify if further safeguards are required.</li> </ul>	<p>The boards are in place but are not currently used as intended</p>	<p>NC Duplicated with SoC</p>	<p>Consider using the blast notice boards prior to blasting.</p>	<p>C</p>
	<p>Notification to the general public about proposed blasting dates and times is provided via a blast notice board near the mine entrance on Wean Road. This will notify passing motorists when the next blast is scheduled. Two additional signs are provided to the north and the south of the mine site on Wean Road to notify motorists of potential road delays between 9am to 5pm, a contact phone number is also provided. A second blast notice board is displayed on the western entrance to notify traffic entering RCM from the Whitehaven haul route of proposed blasting dates and times.</p>	<p>The boards are in place but are not currently used as intended.</p> <p>Sentries are placed along road to prevent use of the road by traffic during blasting.</p> <p>Two additional signs on Wean Rd notifying of potential delays are in place. Blast board at western entrance to notify traffic using the haul road is also in place (inside site).</p>	<p>NC Duplicated with SoC</p>	<p>Consider using the blast notice boards prior to blasting.</p>	<p>C</p>
	<p>In the event that the monitoring results of a blast identify an exceedance of:</p> <ul style="list-style-type: none"> <li>Peak vector sum velocity (ground vibration) – 5mm/s (ppv); and/or</li> <li>Peak overpressure – 115dB,</li> </ul> <p>RCM will initiate investigation as to the cause of the exceedance.</p>	<p>Review of the blast monitoring results for 2011/12 period indicate the maximum recorded peak overpressure level was 118.9dB recorded at “Roseberry” on the 21st March 2013. This overpressure result over 115dB is compliant, as it was not more than 5% of the total number of blasts over the 2012/13 reporting period.</p> <p>2 blasts during the 2014/15 period exceeded the 115dB limit, with results of 116.1dB on the 5th September 2014 and 115.7dB on the 18th September 2014. Both of these results were recorded at “Roseberry”, and made up 6.7% of all blasts undertaken for the period.</p> <p>5% of 115dB was exceeded 18 September 2014 but was not picked up in the AEMR however was picked up through reporting for the EPL. The EPL, ML and PA all have different definitions of 12 months.</p> <p>The tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p>	<p>NC Duplicated with MCoA 3.5, EPL L5.1 and ML1602 (15(b))</p>	<p>No further actions recommended. Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p>	<p>C</p>
	<p>RCM will notify DPE and EPA of any blasting related non-compliances or exceedances as soon as practicable after RCM becomes aware of the issue.</p>	<p>Reported to DPE once aware of exceedance. Reported to EPA as part of Annual Return.</p>	<p>NC Duplicated with MCoA 3.5 and above</p>	<p>Refer to above</p>	<p>C</p>
	<p>Within 7 days of the date of the incident, RCM will provide DPE and EPA with a detailed written report on the incident. The report would include details such as the date, time and nature of the non-compliance or exceedance, the cause or likely cause, the action taken to date and proposed measures to minimise potential for non-compliances or exceedances with future blasts.</p> <p>Exceedances will also be reported in the blasting discussion in the Annual Review.</p>	<p>AEMRs for audit period report the following incidents:</p> <p>2012-13: no environmental incidents reported</p> <p>2013-14: no environmental incidents reported</p> <p>2014/15: exceedance of 5% of blasts above 115 dB. Reporting of the incident was undertaken to the DP&amp;E post the reporting period as rolling averages not calculated – this has now been added to the monitoring Excel spreadsheet.</p>	<p>NC Duplicated with MCoA 5.6 and EPL R2.2</p>	<p>Tracking of overpressure readings is now compared to a rolling 12 months to prevent further oversights.</p> <p>Consider reviewing the compliance tracking and reporting procedure to ensure EPA and DP&amp;E are informed of any exceedances.</p>	<p>C</p>

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	The date, time and location of the blast/s will be posted on appropriate signs, located on Wean Road.	The boards are in place but are not currently used as intended.  Sentries are placed along road to prevent use of the road by traffic during blasting.	NC Duplicated with SoC	Consider using the blast notice boards prior to blasting.	C
	This document will be reviewed, and if necessary revised, in accordance with Schedule 5 Condition 5 of PA 11_0047 i.e. within 3 months of the submission of:-  <ul style="list-style-type: none"> <li>■ Annual Review;</li> <li>■ Incident report;</li> <li>■ Independent Environmental Audit; or</li> <li>■ Any modification to the conditions of PA 10_0015.</li> </ul>	Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.	ANC Duplicated with MCoA 4.5	Consider the creation of an excel sheet with plan review tables and update reviews completed even if no changes are required to the plans.	C
	Additional education and awareness programs will be provided, on an ongoing basis, for relevant personnel working near blast areas such as sentries and drill and blast contractors. Training for relevant personnel (Drill and Blast Engineer, Shotfirers, Drillers, OCE's, drill and blast contractors) will be undertaken in accordance with WHC-OC-Training and Competency Management Plan, and covers:  <ul style="list-style-type: none"> <li>■ The identification and rating of post-blast fumes.</li> <li>■ The potential health impacts of fume gases.</li> <li>■ Potential causes of blast fume.</li> <li>■ Fume mitigating actions as detailed in this procedure.</li> </ul>	Review of the Training and Competency Management Plan does not include requirement for additional training of personnel working near blast areas.  Evidence of additional training not available for review during the audit.	ANC	Training of personnel working near blast areas is completed.	C
<i>Noise Management Plan</i>					
	Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics. The sound power levels adopted are those identified in the Rocglen Extension EA Volume 3 Appendix Q (Table 2, Page 10).	Internal emails sighted to determine sound power levels for equipment on site. Individual pieces of equipment do not currently have sound power levels checked to confirm within specifications and consistent with previous assessments undertaken by Spectrum Acoustics prior to being brought on site.	NC Duplicated with SoC	Consider the requirement to test equipment prior to being brought on site. Consider developing a list of equipment and their sound power levels (design and measured) with comparison to previous assessments as a record.	C
	Mid-high frequency broadband beepers are fitted to on-site mobile mining equipment.	Not all equipment is fitted with mid-high frequency reverse beepers.	NC Duplicated with SoC	The auditor reviewed evidence to indicate all mobile mining equipment is fitted with mid-high frequency reverse beepers.	C
	Each 15-minute statistic will have an accompanying third-octave band spectrum.	Noise and weather over time is presented with no spectral data evident. Low frequency content (low frequency on charts) is presented but not tonal content.  Presenting 15-minute statistic that's has an accompanying third-octave band spectrum would not be practicable for interpretation purposes.	ANC	Consider incorporating tonal content to enable assessment against the INP (i.e. considers modifying factors).	C
	Data from the site weather station and the real time noise monitoring unit will be obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.	One complaint for noise was received during the audit period:  1 May 2013 – complaint regarding noise, dust and lights. The complaint was also raised at the CCC the following week. It was considered temperature inversion conditions were likely to have exacerbated noise levels.  The complaint details do not discuss site weather station and real time data analysis.	ANC	Consider including data from the weather station and the real time noise monitor when noise complaints are received for the site.  Note, no noise complaints were received during the audit period.	O (Compliant)

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<i>Rehabilitation Management Plan</i>					
	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and three square metres, respectively. Rock lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site. Consideration may also be given to trialling other erosion control devices or systems as rehabilitation processes across the site.	<p>The northern emplacement area consists of banks which divert water to an eastern and western rock lined channel. The eastern channel has recently been installed and it is noted that there is a channel forming alongside (northern edge). It is also noted that tunnel erosion near the western channel has been repaired however it is noted that water is ponding in this area.</p> <p>The western emplacement area it was noted a series of dams and rock lined channels are in place along the western boundary of the site.</p>	NC Duplicated with SoC	Consider diverting water to the newly constructed eastern channel in the northern emplacement area to prevent further scouring alongside this channel. In addition, consider installing a batter shoot where water is ponding in the recently repaired tunnel erosion area or complete works to divert water to the rock lined drain on the western face of the northern emplacement area.	O (Non-compliant)
	Where stockpiles become weed infested, the top 150 millimetres should be scalped off and discarded prior to the remaining material being utilised for rehabilitation.	<p>Environmental field officer completes this on a campaign basis.</p> <p>Scalping is unlikely to occur due to shortages of topsoil.</p> <p>The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.</p> <p>No record of treatment for stockpiles prior to reuse.</p>	ANC O Duplicated with SoC	O - Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re spreading/reuse on site.	O (Compliant)
	<p>Weed control measures include:</p> <ul style="list-style-type: none"> <li>■ Hosing down equipment in an approved wash down area before entry to site;</li> <li>■ Herbicide spraying or scalping weeds off topsoil stockpiles prior to re-spreading;</li> <li>■ Rehabilitation inspection to identify potential weed infestations; and</li> <li>■ Identifying and spraying existing weed populations on-site together with on-going weed spraying over the life of the mine.</li> </ul>	<p>Mechanical inspection checklist (MDG15 form) is completed on new equipment entering site which does not include checks for weeds.</p> <p>Campaign spraying prior to stripping of topsoil does not currently occur.</p> <p>Procedure has been developed for clearing and pre-stripping activities.</p> <p>Monthly environment inspections include checks for weeds in rehabilitated areas.</p> <p>Topsoil shortage on site precludes the practise of scalping.</p>	ANC Duplicated with SoC	Consider including requirement to complete campaign spraying prior to spreading topsoil into existing procedure and include checks for weeds on new equipment to site as part of initial check.	C
	<p>In developing the rehabilitation monitoring program, the following aspects should be taken into consideration:</p> <ul style="list-style-type: none"> <li>■ Replicated monitoring sites should be established in representative rehabilitation areas of different ages.</li> <li>■ One monitoring site per 20 to 40 hectares is appropriate for each major age class of the rehabilitation areas.</li> <li>■ Sites should be monitored 12 months after establishment and then every two years.</li> <li>■ A standard monitoring plot design for areas rehabilitated with trees should be used:</li> <li>■ 2 metre by 2 metre quadrats – these will provide some estimate of statistical variance, so that if required, statistical analyses can be undertaken to objectively compare different rehabilitation treatments and changes over time;</li> <li>■ a 20 metre by 10 metre plot overlying the 2 metre quadrats and located 5 metres either side of the centerline, for ease of monitoring; and</li> <li>■ a 50 metre erosion monitoring transect on contour, running through the centre of the plot.</li> </ul>	<p>Monitoring report states methods are in accordance with the RMP. Appendix A includes extract from RMP.</p> <p>Table in RMP indicates monitoring to be completed every two years – review of AEMRs indicates Eco Logical Report completed 2015 is the first report since the report was completed for the Project Extension in 2010.</p>	NC	Rehabilitation monitoring has been completed at the frequencies outlined in the RMP.	C
	Five years prior to mine closure, a more detailed Rehabilitation and Mine Closure Plan will be prepared.	Update to Rehabilitation and Mine Closure Plan currently being prepared. Closure of the site is expected financial year 2019/20 which is three to four years away.	ANC	Complete development of plans and issue as soon as practicable.	C

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<i>Traffic Noise Management Plan</i>					
	<p>The monitoring report will include, as a minimum:</p> <ul style="list-style-type: none"> <li>■ the total number of trucks counted during the noise measurement (identified as empty or full);</li> <li>■ the total measured LAeq (1 hour) from coal trucks;</li> <li>■ the total measured LAeq (1 hour) from all sources to allow comparison of contribution from coal haul trucks comparative to other sources.</li> <li>■ details of any identified noisy truck(s);</li> <li>■ details of the calculation methodology; and</li> <li>■ wind speed and directional data and a discussion of potential meteorological influence on noise levels during each measurement period.</li> </ul>	<p>Review of the last report issued December 2015 indicates following information is included:</p> <ul style="list-style-type: none"> <li>■ Total number of trucks – 31, 33 and 35 but not identified as empty or full</li> <li>■ Total measured LAeq from coal trucks between 39 and 53dB(A)</li> <li>■ Total measured LAeq from all sources not reported</li> <li>■ Calculation methodology not detailed</li> <li>■ Wind speed and directional data missing from reports.</li> </ul>	ANC	<p>Consider advising Spectrum Acoustics to include total measured LAeq for all sources, calculation method used and wind speed and direction during each measurement period into the Road Noise Monitoring Reports.</p> <p>Ensure monitoring include emission from Vickery Mine once it becomes operational.</p>	NV
	<p>A summary of noise monitoring results will be reported internally on a monthly basis as well as on a quarterly basis to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website (www.whitehavencoal.com.au).</p>	<p>Monthly data is located on the website for period 2012 to March 2016.</p> <p>A quarterly summary of the noise results is not currently included on the website. CCC meetings have moved from quarterly to six monthly therefore monitoring results are reported at this time.</p>	ANC	<p>Consider reviewing the reporting frequency to align with the CCC meeting frequency and attach the results to the CCC minutes which are uploaded to the website.</p>	O (Compliant)
	<p>This document will be reviewed at least every two years and following any significant changes (i.e. changes to approval/licence requirements or monitoring protocol). Each review will be undertaken in consultation with relevant stakeholders and will be submitted to the Director-General for approval.</p>	<p>Review of the Management Plans indicates reviews are completed for Project Expansion. There is no evidence for reviews completed for all requirements listed as per this condition.</p>	ANC Duplicated with MCoA 4.5	<p>Consider the creation of an excel sheet with plan review tables and update reviews completed even if no changes are required to the plans.</p>	C
<i>Water Management Plan</i>					
	<p>An update of the site water balance will be undertaken on an annual basis as part of the annual review of the WMP, or following any new or modified approval conditions relevant to water management or where there is any change to the operations which are likely to materially change potential impacts</p>	<p>AEMRs report on total water usage and sources of water for usage.</p>	NC	<p>Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance.</p>	C
	<p>Installing temporary erosion and sediment control devices as required (i.e. sediment fences, sand bag weirs) to minimise the discharge of sediment laden water from newly disturbed areas</p>	<p>Historical erosion and sediment control devices noted during the site inspection in the rehabilitated and revegetated areas. Some scouring and erosion was noted in the newer areas of rehabilitation in the northern emplacement area.</p>	NC Duplicated with SoC	<p>Consider removing erosion and sediment control structures that are damaged/no longer required. Consider installing additional controls where erosion is evident to prevent the need for extensive rework/repairs.</p> <p>The auditor notes some bunds on northern emplacement have been reworked/repared to address this condition.</p>	O (Compliant)
	<p>Implementing an effective revegetation and maintenance program for the site</p>	<p>Site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds (Class 4 such as Bathurst Burr and Prickly Pear). Galvanised Burr and Black Roly Poly is the most common weed but are not locally declared weed.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. A biodiversity expert has been recently (last two months) appointed fulltime to oversee the rehabilitation of the Whitehaven Coal sites. This will include investigating alternative methods for reseeding/replanting.</p>	NC Duplicated with SoC	<p>Continue to investigate alternative rehabilitation methods to increase success.</p>	O (Compliant)

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	Water quality monitoring results for downstream watercourses (Driggle Draggie Creek and the unnamed creek to the south of the site) will be assessed, for each monitoring event, against key default trigger values presented in Table 7 and sourced from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000).	Unnamed drainage channel and Driggle Draggie Creek sampled for wet weather discharges analytes only (pH, TSS, TOC, and EC). No further testing or comparison to the ANZECC guidelines listed in Table 7 has occurred.	NC	Sediment dam & site monitoring undertaken with wide suite against ANZECC guidelines  Unnamed drainage channel and Driggle Draggie Creek sampled for wet weather discharges analytes only (pH, TSS, TOC, and EC). No further testing or comparison to the ANZECC guidelines listed in Table 7 has occurred	NC
	As directed by the EPA (EPA letter dated 21st August 2015), where runoff from coal contact areas is captured in storage dams designed for sediment control, Rocglen Coal Mine will need to establish whether the discharge from these structures contains pollutants that pose a risk of non-trivial harm to human health and/or the environment. As directed by the EPA, trivial versus non-trivial pollutant concentrations can be defined with reference to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. If a pollutant exceeds the relevant trigger value, it can be considered that it poses a risk of non-trivial harm to human health and/or the environment.	SD3 and Dam 'B' are considered coal contact dams. Additional monitoring of these sites has occurred during the audit period.  Comparison to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality has not been completed in the excel sheet.	ANC	Consider adding a line to the excel database with ANZECC trigger values to enable early detection of any exceedances.	C
	Rocglen Coal Mine will implement a monitoring program to address this data deficiency. This monitoring program is proposed to include sampling of waters from SD3 and Dam 'B' for parameters including the physio-chemical parameters pH, EC, TSS, organic nutrients, dissolved metals and oil and grease.	Monitoring is completed for pH Electrical Conductivity ( $\mu\text{S}/\text{cm}$ ), Total Suspended Solids (mg/L), Total Organic Carbon (TOC), Grease & Oil (mg/L), Antimony, Selenium, Arsenic, Molybdenum.	NC	Consider the monitoring of all listed parameters such as organic nutrients and dissolved metals as listed in Table 7	C
	A program to monitor creek line channel stability and health of riparian vegetation within Driggle Draggie Creek and the unnamed creek to the south of the site would be undertaken throughout the mine life. The monitoring would be undertaken along a short length of the downstream watercourses. General observations of stream health will be recorded during the quarterly water quality monitoring for these watercourses.  <ul style="list-style-type: none"> <li>■ Monitoring of the drainage lines would include:</li> <li>■ Documenting general observations of water quantity and quality;</li> <li>■ Documenting locations and dimensions of significant erosive or depositional features so that any subsequent changes can be evaluated quantitatively;</li> <li>■ Establishing multiple photographic points at representative locations, so that photos can be taken over multiple inspections in a repeatable manner;</li> <li>■ Written descriptions of the stream at each of the photographic points, focussing on evidence of erosion and exposed soils; and</li> <li>■ Documenting general indicators of stream health, including abundance of flora and fauna.</li> </ul>	Eco Logical completed monitoring for Spring 2014 to Autumn 2015 but includes rehabilitation monitoring only.  Quarterly sampling of the creek limited to water quality sampling.	NC	Consider the review of the creek monitoring program and action accordingly.	NC
	The results will also be compared to relevant site operations and meteorological conditions to further interpret the results. This comparison between samples, between sampling periods and against other factors will assist in identifying whether the activities on the site are in fact affecting the water quality of the local catchment.	Review of Excel spreadsheet – comments column includes comment if rainfall has exceeded 90%tile or if no discharge.  No comment on operations is noted.	ANC	If no discharge then consider adding results to surface water sampling sheet to remove confusion. In addition consider adding the rainfall reviewed the prior 5 days and note the activities on site that may impact water quality e.g. earthworks completed in western emplacement area with catchment to western drainage line etc.	O (Compliant)

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
	Groundwater impact assessment criteria are contained in Table 10 below, and show trigger levels for groundwater levels and quality (pH, EC, TDS).	<p>Overview of groundwater results indicate following:</p> <p>WP5A – water levels have dropped 15metres with the bore now substantially dry. The AEMR reports that Douglas Partners predicted that at the end of the northern phase of mining during the extension of the pit, MP-5 / MP-5a could be drawn down by up to 13.4m. Results indicate that the actual drop of approximately 15.22m in SWL is slightly higher than this prediction.</p> <p>MP6 – EC is trending down indicating potential rain/freshwater impacts.</p> <p>MP7 – pH is rising and TDS is falling.</p>	NC	Investigation needs to be completed on groundwater results to confirm if trigger levels for investigation have been reached in MP6 and MP7 (as a minimum).	O (Non-Compliant)
	<p>The following two methods are used to estimate groundwater inflows to the mining operations:</p> <ul style="list-style-type: none"> <li>Whitehaven will monitor the volume of water pumped out of the pit. If this coincides with a period of low or no rainfall, this will be used directly as a measure of groundwater inflow. If this occurs during periods of rainfall the site water balance model will be used to estimate the rainfall runoff component and, by subtraction, estimate the groundwater inflow; and</li> <li>Monitored bore water levels is used to estimate groundwater gradients towards the open cut pit, by triangulation. Estimated gradients would be used together with estimates of strata permeability to calculate groundwater flow rates toward the pit. This would be estimated annually as part of the groundwater model verification.</li> </ul>	<p>Volume of water pumped out of the pit is reported in the AEMRs (Section 2.8.2). Water balance not currently reported in the AEMR.</p> <p>Monitored bore levels are not currently used to calculate groundwater flow rates to the pit.</p>	NC Duplicated in this plan	Consider including a table in the Annual Reviews which detail all water sources including rainfall, water losses including evaporation and discharges and final balance.	O (Compliant)

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Status
	<p>Groundwater exceedance procedure:</p> <ol style="list-style-type: none"> <li>1. Check and validate the data which indicates an exceedance of the assessment criteria / trigger level (as soon as possible and within 7 days).</li> <li>2. Notify NSW Department of Planning and Environment (DPE) and any other relevant department as soon as practicable (within 7 days after becoming aware of the exceedance).</li> <li>3. A preliminary investigation will be undertaken to identify the cause and determine whether changes to the groundwater management system are required. This will comprise analysis of the exceedance result, baseline groundwater monitoring, current monitoring results in the vicinity of the exceedance, meteorological conditions of the period, current site activities and adjacent land use activities, including pumping from nearby irrigation bores.</li> <li>4. A preliminary investigation report of the exceedance is to be prepared and submitted to the DPE and any other relevant department (within 28 days of the incident).</li> <li>5. Any further investigations recommended by the preliminary investigation report will be conducted in consultation with DPE and any other relevant departments (timeframe to be determined in consultation with DPE).</li> <li>6. Remedial measures will be developed in consultation with DPE and any other relevant department and implemented in response to the outcomes of the investigations (timeframe to be determined in consultation with DPE).</li> <li>7. In emergency situations water will be supplied to the impacted landholder within 7 days of the exceedance, at least on an interim basis, until investigations are completed.</li> <li>8. Additional monitoring would be implemented to measure the effectiveness of contingency measures where necessary (timeframe to be determined in consultation with DPE).</li> </ol>	<p>Review of results indicate some triggers may have been reached – refer above.</p>	<p>NC Duplicated with this plan</p>	<p>Review of results indicate some triggers may have been reached – refer above.</p>	<p>NC Duplicated with this plan</p>

### 3.2 Complaints Summary

Complaints were received from 2016 through to the end of the audit reporting period. Details of complaints received over this period and the responses provided are outlined in *Table 3.1* to *Table 3.3*.

**Table 3.1. Complaint Summary 2016**

Date	Complaint	Complaint details	Action taken
08/04/2016	The complainant stated that the blast shook their house and they are worried stock bores may collapse.	Phone call to site office (Rocglen Operations Manager) & follow up call from Group Superintendent - Environment (Operations)	Structural Inspection to be undertaken following request from complainant.
14/04/2016	The complainant alleged excessive blast fumes from a blast that occurred between 1245 and 1300hrs at the premises.		Report provided to EPA.
26/05/2016	The complainant stated that the blast shook things off the table at his property, and they are worried about stock bore.		Report provided to EPA.

**Table 3.2. Environmental Complaint Summary 2017**

Date	Complaint	Complaint details	Action taken
13/07/17	The complainant alleged that blasting caused excessive noise, dust and vibration.	Via email from EPA.	Requested information supplied to the EPA.

**Table 3.3. Environmental Complaint Summary 2018**

Date	Complaint	Complaint details	Action taken
26/04/18	Alleged that a worker from RCM threw rubbish out of their car window onto Wean Rd.	Via email from EPA.	Follow up based on information provided.  26/4/18 - Spoke to operators at pre-start night shift.  27/4/18 - OCE spoke to operators at pre-start day shift.

The most frequent complaint relates to blasts, all of which have been closed out, all blasts monitored and where complaints were received, responses were provided to the EPA as required.

### 3.3 Incident Summary

In 2016, three incidents were reported:

- A blast fume incident on the 18 August 2016
- A noise exceedance on September 2016; and
- A HVAS exceedance on the 1 December 2016.

Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fume event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions. WHC received a fine of \$38,500 (discounted from \$55,000 as a result of assistance provided to agencies and mitigation measures to minimise risk of reoccurrence), and required to pay EPA legal fees and publish notices on the website and in newspapers. There was no evidence of actual or consequential environmental harm.

WHC received an official warning for the noise exceedance, and on the 1st November 2016 received a Show Cause Notice from the EPA, to which a response was provided detailing advice received from the RCM noise consultant, along with the results of the additional monitoring. Notification was provided to the affected landholders following receipt of both monitoring results.

Concerning the HVAS exceedance, the 2016 AEMR stated that notification and information on weather conditions and operations on the day of the exceedance was provided to the EPA on the 13th January 2017. The report stated that given both the RCM weather station and Costa Vale HVAS are located to the north of operations, recorded data indicated that there were no abnormal operations or dust observations to the north of the mine site, and that prevailing wind direction on the day was from the NE. Hence, it is likely that the elevated PM10 reading was not related to mining activity.

In 2017, four incidents were reported:

- three were exceedances of the site noise criteria after application of the 5dB low frequency noise modifying factor; and
- an uncontrolled wet weather discharge during which the site meteorological station was not operating correctly.

The site returned to being within noise criteria in the final quarter of 2017. No additional measures were proposed by WHC.

Review of the regional rainfall during the uncontrolled discharge identified that greater than the basins design rainfall event had been received.

In 2018, no reportable incidents were identified, while five non-compliance were noted against PA10\_0015 and four were noted against EPL 12870. All were tanked as either administrative or low.

### 3.4 Environmental Monitoring Performance

#### 3.4.1 Noise

The Noise Management Plan was submitted to the NSW DP&E on 25 May 2018 and is yet to be approved. The latest approved revision of the document was in February 2016.

Rocglen Coal Mine Annual Reviews for 2016 and 2017 identified one noise exceedance during the 2016 reporting period (1st August 2016 to 31st December 2016), and three exceedances during the 2017 reporting period (1st January 2017 to 31st December 2017). All exceedances were recorded at the Surrey property. Further discussion of these incidents are provided in Section 3.3.

In addition to noise monitoring undertaken using mobile real time monitors, attended noise monitoring was undertaken on a quarterly basis in September and December of the 2016 reporting period, and March, May, August, and November of the 2017 reporting period. Cumulative road noise monitoring occurred in December of the 2016 reporting period, returning compliant results, however this monitoring was not undertaken during the 2017 reporting period as required under the Noise Management Plan. According to the 2017 Annual Report, monitoring was completed prior to the time of reporting, returning compliant results.

The site Community Complaints Register 2017 indicated that one noise-related complaint was received during the 2017 reporting period, relating to excessive noise caused by blasting. The action taken following receipt of complaint involved providing requested information to the EPA.

### 3.4.2 Air Quality and Blasting

#### 3.4.2.1 Air Quality

The Air Quality and Greenhouse Gas Management Plan was submitted to the NSW DP&E in May 2018 and was approved by the Secretary in July 2018, having considered that it meets the relevant conditions of consent.

Site observations included dust suppression with water carts and attempted progressive stabilisation.

WHC operates two High Volume Air Sampler (HVAS), a Tapered Element Oscillating Microbalance (TEOM) and depositional dust gauges. The Two High Volume Air Samplers (PM10) operate at Costa Vale and the privately owned Roseberry property, respectively. The TEOM is also operated at the Roseberry property to monitor PM10. Data is generated every 15 minutes and correlated against current weather conditions.

Results for HVAS during the 2016 reporting period show compliance with the annual average PM10 criteria, however the 24-hour average PM10 particulate level was exceeded at Costa Vale on one occasion. A report provided to the EPA following the exceedance indicated that a number of factors including prevailing wind directions made it likely that the elevated reading was not related to mining activity. There were four 24-hour average PM10 particulate level exceedances at Costa Vale in the 2017 reporting period, however none are likely to be related to mining activity; one recording was on a non-operational day, and the remainder were on days with factors including prevailing wind directions that make it unlikely to be a result of operations.

There was one exceedance of the HVAS criterion during the 2016 reporting period, which was determined to be non-mine related, and four exceedances during the 2017 reporting period, which were also determined to be non-mine related.

Monitoring of deposited dust was undertaken on a monthly basis during the 2016 and 2017 reporting periods, with the annual average limit for deposited dust not being exceeded at any location for either year. PM10 levels were monitored every 6 days during both reporting periods.

The Total Suspended Particulate (TSP) Annual Rolling Average remained well below criteria for both 2016 and 2017 reporting periods.

The site Community Complaints Register 2017 identified one dust-related complaint in July 2017 caused by blasting. The action taken following receipt of complaint involved providing requested information to the EPA.

One fume event during the 2016 reporting period resulted in the generation of offensive odours. This is discussed in detail in Section 3.3.

#### 3.4.2.2 Blasting

The Blast Management Plan was submitted to NSW DP&E in May 2018 and was approved by the Secretary in July 2018, having considered that the plan meets the relevant conditions of consent.

One instance of blast fume leaving the mine site occurred during the 2016 reporting period, however, all blasts remained within blast criteria. The EPA served WHC on 17th August 2017 in relation to the blast fume event.

The site Community Complaints Register 2016 identified three blasting-related complaints: as discussed in Section 3.2.

The blasting criteria was not exceeded for any blast during the 2016 or 2017 reporting period.

### 3.4.3 Water Management

#### 3.4.3.1 Surface Water

The Surface Water Management Plan as an annexure to the broader Water Management Plan was approved by the Secretary in July 2018, having considered that it meets the relevant conditions of consent.

The Site inspection identified sediment detention basins and pit voids that manage sediment laden water generated by the site. As stated in the 2016 and 2017 Annual Reports, the design of sediment detention basins, storage dams and associated banks and drains on site aim to limit the opportunity of discharge of runoff from mine-disturbed areas, until the licenced discharge criteria are met.

Surface water monitoring has been undertaken, as reported in the 2016 and 2017 Annual Reviews. Quarterly surface water testing in the 2016 and 2017 reporting periods included the void water dam (Void), three additional out of pit surface water storages, (SD3, SB19, Dam B), and one offsite upstream dam (SD7). Total Organic Carbon (TOC) results for the 2016 reporting period show slight fluctuations for all sites, while the 2017 reporting period indicated a similar fluctuating trend with Total Suspended Solids (TSS) for all sites. SB19 showed a spike in Electrical Conductivity early in the 2017 reporting period, but returned to normal levels during the second half of the year

There are two licenced discharge points (LDPs) nominated in the current EPL 12870: LDP11 to the south of the site, and LDP12 to the north of the site. There were nineteen controlled discharges of water during the 2016 reporting period and five controlled discharges during the 2017 period; all utilised the LDPs and were undertaken as part of ongoing onsite water management. All discharges occurred following flocculant treatment and water sample analysis, and met the water discharge criteria specified for the site.

There was one uncontrolled discharge from LDP11 in the 2016 reporting period, following a prolonged period of wet weather, and one from both LDP11 and LDP12 in the 2017 period, following a five-day rainfall event. The 2016 discharge met the discharge water quality criteria, while the site meteorological station was not operating correctly for the 2017 discharge.

#### 3.4.3.2 Groundwater

The Groundwater Management Plan as an annexure to the broader Water Management Plan was approved by the Secretary in July 2018, having considered that it meets the relevant conditions of consent.

Groundwater sampling and analysis was undertaken by ALS ACIRL Pty Ltd during both the 2016 and 2017 reporting periods. Pressure transducers/loggers installed in monitoring bores on site have shown relatively consistent groundwater levels at all five recording sites for both reporting periods. The results are generally consistent with the results of quarterly monitoring undertaken in both reporting periods.

Results for the 2016 and 2017 reporting periods indicate that standing water level has generally not lowered at the monitoring and groundwater bores surrounding the mine, with the exception of MP-5a, which has been dropping since 2013. According to the 2017 Annual Review, drawdown of this bore is not unexpected due to its proximity to the open cut pit.

### 3.5 Management Plan Adequacy

The Management Plans for the site were reviewed and the adequacy in meeting the relevant approval requirements was assessed. This predominately took the form of reviewing the non-conformances found during the previous audit period to determine if rectification had confirmed either by updating the document, addressing the non-compliance in undertaking an activity on-site that was confirmed by site inspection. This was deemed sufficient, as either no change to the plan had occurred since the previous reporting period, the change was negligible to warrant full review and no significant alteration to mining activities have undertaken at the site since the previous audit (noting that the modifications that occurred during this reporting period were predominately related to haulage). All plans were deemed sufficient based on the current activities being undertaken on-site. The findings of the Management Plan review are outlined in Table 3.2 and Appendix A.

### 3.6 Mining Leases

The Rocglen coal mine lies within the mining leases (MLs) 1620 and 1662. Rocglen Mine is wholly owned by Whitehaven Coal.

The Department Division of Resources and Geoscience (DRG) on the 18<sup>th</sup> of October 2015 approved the Mining Operations Plan for all mining leases applicable to the site. An amendment to address the schedule of activities was made on the 10<sup>th</sup> of November 2016. Draft security deed documentation indicates that deed has been paid, though more formal documentation would provide a more robust form of evidence.

The Mining Lease conditions and the summary of audit findings is provided in *Annex A*.

### 3.7 Water Access Licences

Aquifer Interference Licence 90BL254684 was converted to a Water Management Act 2000 Licence and replaced by 90WA832698 (Issued June 2013) – WAL 36758: The annual allocation of 700 megalitres (ML) is for the potential interception of groundwater within the open cut pit.

Licences 90BL255816 and 90BL255249 have been converted to Water Management Act 2000 licences and have been replaced by 90WA822541 – WAL 29461. The annual allocation for aquifer pumping is 120ML. Further details are provided in Table 3.4.

**Table 3.4 Water Access Licence Details**

Category (Subcategory)	WAL	Management Zone	Share Component (units or ML)	Works Approval	Status
Aquifer	29461	Gunnedah - Oxley Basin Mdb (Other) Management Zone	120.00	90WA822541	Current
Aquifer	36758	Gunnedah - Oxley Basin Mdb (Other) Management Zone	700.00	90WA832698	Current

### 3.8 Compliance with Regulatory Instruments

A compliance check of the MCoA, EPL, WALs and MLs conditions has been completed. Non-compliances and observations for each component are summarised in *Table 3.5*. A full review and audit findings against CoA 92/97, Statement of Commitments (SoC) and EPL20805 is located in *Annex A*.

As discussed in *Section 2.3*, a qualitative risk assessment was also completed on the findings as follows:

- non-compliance assessed as 'high' have been colour coded red;
- non-compliance assessed as 'moderate' have been colour coded orange;
- non-compliance assessed as 'low' have been colour coded yellow; and
- administrative non-compliance have been colour coded blue.

**Table 3.5 Summary of Audit Findings**

No	Assessment Requirement	Comments	Compliance Status	Recommendations
Minister's Conditions of Approval PA 10_0015 MOD 4				
2.7	By the end of September 2012, or as otherwise agreed by the Secretary, the Proponent shall surrender the existing project approval for the Rocglen Coal Mine (06_0198) in accordance with section 75YA of the EP&A Act.	<p>Letter to DP&amp;I formally requesting surrender in September 2012.</p> <p>Email received from DP&amp;I October 2012 requesting confirmation of land ownership with approval from the landholder required consenting to the surrender. The surrender of this approval has not been completed.</p>	ANC	<p>Assessment of additional PA 06_198 conditions has been completed in lieu of this approval being surrendered.</p> <p>The surrender of PA06_0198 is dependent upon consent of the owners of the land covered by the PA, the achievement of which is affected by ongoing discussion between WHC/GSC regarding transfer of ownership of a section of Wean Road.</p>
2.8	Prior to the surrender of project approval 06_0198, the conditions of this approval shall prevail to the extent of any inconsistency between the two approvals.	Project Approval surrender has been submitted but not finalised.	ANC	Refer above
3.1	<p>The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 1 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>Environmental Officer - exceedances in 2016 and 2017.</p> <p>- 6 September 2016 exceedance during daytime at N2 due to environmental conditions and mining operations. No complaints or alarms received so operations continued unaltered. identified that alternate consultant was to undertake additional monitoring. Warning letter was provided by the DPE with regards to this exceedance. Additional monitoring was undertaken.</p> <p>- 24 March 2017 exceedance during night time period at N2. Exceedance caused by environmental conditions and mining operations. No alterations to operations/management occurred as no alarms were raised or complaints received, and the identification of the exceedance would likely have been identified after the fact, when modification factors were applied during reporting.</p> <p>- 24 May 2017 exceedance of criteria at Surrey and EPL point N2. Drill maintenance was being undertaken during the night period and caused the exceedance (due to revving of the drill). The maintenance was stopped, and a subsequent measurement returned compliant.</p> <p>Evening of August 14, and night of August 15, 16 2017 using low frequency modifying factors correction at N2 at Surrey and identified that the modified noise levels exceeded. No alterations to operations/management occurred as no alarms were raised or complaints received, and the identification of the exceedance would likely have been identified after the fact, when modification factors were applied during reporting.</p> <p>In all cases the EPA was notified as per documents listed</p>	NC	No further action required
3.2	<p>The Proponent, together with the owners of the Tarrawonga and Vickery coal mines, shall ensure that the noise generated on public roads by the project and the other mines, does not exceed the criteria in Table 2 at any existing residence on privately-owned land.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>Note: Traffic noise generated by the project is to be measured in accordance with the relevant procedures in the NSW Road Noise Policy</p>	<p>Missed a 6-monthly attended road traffic noise monitoring event in 2017. All other monitoring events were compliant. Show cause notice from DPE was received.</p> <p>CMO - computer program with all conditions for tracking and prompting for undertaking monitoring is now in place.</p> <p>Official warning was issued 21 March 2018.</p> <p>2016 six monthly attended traffic noise reports observed compliance noted</p>	ANC	Ongoing monitoring. Monitoring was completed in 2016 and 2018 confirming compliance during the audit period.

No	Assessment Requirement	Comments	Compliance Status	Recommendations
3.3	<p>The Proponent shall:</p> <p>(a) implement best practice noise management to minimise the operational, low frequency, and road traffic noise generated by the project;</p> <p>(b) minimise the noise impacts of the project during temperature inversions; and</p> <p>(c) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>	<p>Previous audit identified that temperature inversion alarms should be enabled on the meteorological station. Environmental officer identified that no inversion alarms have been received and recommendation unlikely to have been implemented.</p> <p>Email from novecom (meteorological station operators) identified that alarms could be incorporated.</p>	O (Compliant)	<p>Previous audit recommendation to investigate the addition of temperature inversion alarms on the meteorological station to enable adjustment of operations accordingly remains. However, there is no specific condition requiring inversion alarm.</p>
3.5	<p>The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 3.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>2016: RCM did not exceed the blasting criteria for any blast during the reporting period. There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&amp;E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast. Following submission of the required information, WHC received a second Notice to Provide Information on the 4th November 2016, with submission of the further requests made on the 17th November 2016. On 17 July 2017 further notice to provide information by the EPA. At the time of writing further information on current status requested from WHC.</p> <p>In addition, WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.</p> <p>The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period.</p>	NC	<p>Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fume event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions.</p>
3.13	<p>The Proponent shall ensure that no offensive odours, as defined under the Protection of the Environment Operations Act 1997 (POEO Act), are emitted from the site.</p>	<p>No odour was identified during the site inspection.</p> <p>Environmental officer identified - No complaints during the audit period relating to odour.</p> <p>There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&amp;E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast.</p> <p>14 April 2016 9.50 - complaint received from EPA relating to blast fume from between 12.45 and 1pm.</p> <p>Spontaneous combustion would be the primary cause of odour - Spontaneous combustion principal hazard management plan is in place for the ROM to prevent occurrence.</p>	NC	<p>Refer section 3.3. WHC and EPA were in correspondence about final outcome from blast fume incident at time of audit.</p> <p>Previous recommendation for inclusion of presence/absence of odour within the monthly inspection list has not been incorporated.</p>
3.20'	<p>The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site to match its available water supply to the satisfaction of the Secretary.</p>	<p>Coal crusher reduced operations.</p> <p>Water currently being sourced from Canyon due to deficit at Rocglen due to drought Survey of 121ML at Canyon (Canyon Groundwater Investigation- Evap). SLR investigation into groundwater seepage at Canyon.</p> <p>To stop sourcing coal in June 2019</p>	O (Compliant)	<p>Water for rehabilitation to be considered in the water balance/required water supply in the future.</p>

No	Assessment Requirement	Comments	Compliance Status	Recommendations
3.24	<p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH and Aboriginal stakeholders;</p> <p>(b) be submitted to the Secretary for approval by the end of December 2011;</p> <p>(c) describe the measures that would be implemented:</p> <ul style="list-style-type: none"> <li>• record and salvage the Aboriginal sites within the project disturbance area, including RPS Rocglen IF1, RPS Rocglen AS1 and RPS Rocglen AS2 at locations as shown in Appendix 6 and any potential archaeological deposits;</li> <li>• store the Aboriginal objects salvaged, both during construction and in the long term;</li> <li>• protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6);</li> <li>• manage the discovery of any human remains or previously unidentified Aboriginal objects;</li> <li>• enable Aboriginal stakeholders to get reasonable access to the site during the project;</li> <li>• ensure Aboriginal stakeholders are consulted about the conservation and management of Aboriginal cultural heritage on site; and</li> <li>• ensure workers on site receive suitable heritage inductions, and that suitable records are kept of these inductions.</li> </ul>	<p>During the audit period WHC updated the HMP. Correspondence from DP&amp;E dated 12 July 2018 states that the management plans listed (including the HMP) have been reviewed and address requirements of Condition 24 Schedule 3.</p> <p>The HMP was noted to be implemented in most cases observed, however with regard to the requirement to protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6), the auditor noted the fencing to be temporary in nature and in some places wind damaged.</p>	O (Non-Compliant)	The auditor recommends WHC upgrade fencing to enhance protection, monitoring and management of scarred trees (NPWS # 20-4-0194 and # 20-4-0195).
3.27	<p>The Proponent shall prepare and implement a traffic management plan for the Project, to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with RMS, Gunnedah Shire Council, and the owners of the Tarrawonga and Vickery coal mines;</p> <p>(b) be submitted to the Secretary for approval, by 31 March 2017;</p> <p>(c) include a program for implementing Whitehaven's commitments in the EA</p> <p>(d) Include transport protocols that describe control measures for coal haulage: during school bus hours; on the Kamilaroi Highway; and during seasonal and event-based peak traffic periods</p> <p>(e) include a driver's Code of Conduct to include but not limited to: behavioural safety practises and initiatives used by drivers to implement the transport protocols; induction process for vehicle operators and regular toolbox meetings; and complaint resolution and disciplinary procedures</p> <p>(f) describe measures to minimise dust from roads that may be used for access to the mine site</p> <p>(g) arrangements to comply with cumulative coal haulage limits from the project and the Tarrawonga and Vickery coal mines; and</p> <p>(h) monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA</p>	<p>DPE approved the TMP (Revision 2, dated March 2017) on the 12 July 2018. The plan was prepared in consultation with Council and NSW Roads and Maritime Services. Table 1 of the Plan provides a summary of consultation and where addressed throughout the plan. Plan could provide more information with regards to a code of conduct and be updated to reference the requirements under the condition that applied with the implementation of Modification 3 (2017) - presently only modification 2 is limit of discussion.</p>	O (Compliant)	The TMP to include a code of conduct for drivers and address specific requirements of 2017 Modification to DA10_0015

No	Assessment Requirement	Comments	Compliance Status	Recommendations
3.31	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;</p> <p>(b) establish and maintain an effective vegetative screen along the boundary of the site that adjoins public roads;</p> <p>(c) ensure that no outdoor lights shine above the horizontal; and</p> <p>(d) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting, or its latest version.</p>	<p>Wean Road runs along eastern boundary – site is visible from the road with minimal vegetation planted along this route particularly in the central section (current pit location). The auditor notes that WHC have made efforts to improve the vegetative screen along the Wean Road during the audit period, most recently July 2018, however it is noted that the trees planted have failed.</p>	O (Non-Compliant)	<p>Consider installing bund along Wean Rd to provide a visual screen. Vegetation will be established during pending closure planning.</p>
3.34	<p>The Proponent shall rehabilitate the site to the satisfaction of DRG. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in Figure 1 in Appendix 5), and comply with the objectives in Table 8.</p>	<p>Ecological conduct annual Rehabilitation Reports. At the start of the MOP (2015) 119.7ha had been rehabilitated. Reporting period is November through October from 2015 to 2020. The period Nov 2016 - October 2017 there was a requirement to rehabilitate 19.8 ha with no requirement to rehabilitate any further locations until after 2020.</p> <p>During reporting periods where there is no MOP requirement to conduct a specified area of rehabilitation, there is a requirement for replanting to address prior rehabilitation failure. Note the auditor observed large areas of rehabilitation failure across the site.</p>	O (Non-compliant)	<p>Prepare a replanting plan to address rehabilitation failure.</p>
3.35	<p>The Proponent shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.</p>	<p>Refer Schedule 3 Condition 34</p>	O (Non-compliant)	<p>Duplicate Refer Schedule 3 Condition 34</p>
<b>Statement of Commitments</b>				
a	<p>Soil materials within the Project Site will be stripped, handled and stockpiled in a manner that minimises the potential for soil loss and structural deterioration.</p>	<p>Stockpiles looked to be in accordance with standard practiced during site inspection however soil types were not clearly understood / Sign posted. Stockpiles where being tested to understand soil type and characteristics to allow for amelioration to improve rehabilitation success.</p>	O (Compliant)	<p>Consider including signage of stockpiles to allow for ease of recognition and reduce potential for contamination / incorrect placement.</p>
g	<p>Prior to re-spreading stockpiled material onto completed mining or overburden emplacement areas, an assessment of weed infestation on stockpiles will be undertaken to determine if individual stockpiles require herbicide application and/or 'scalping' of weed species prior to spreading.</p>	<p>Environmental field officer completes this on a campaign basis.</p> <p>Scalping is unlikely to occur due to shortages of topsoil.</p> <p>Register of herbicide usage not available for review. The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.</p> <p>No record of treatment for stockpiles prior to reuse.</p>	O (ANC)	<p>Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re spreading/reuse on site.</p>
i	<p>Where natural protection from surface runoff flows is not available or achievable, protective earthworks, such as contour banks, and/or straw bale protection will be installed. Silt fencing (or similar) will be installed immediately downslope of any stockpile area potentially susceptible to erosion and maintained until the stockpile is considered stable with an effective vegetation cover.</p>	<p>The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile.</p>	NC	<p>Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site.</p>

No	Assessment Requirement	Comments	Compliance Status	Recommendations
g	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and 3 square metres (m2), respectively. Rock-lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site.	<p>Site inspection identified that banks were present on the eastern rehabilitated areas and conveyed runoff to a series of basins.</p> <p>The northern emplacement area has a series of banks that convey runoff to rock lined drains and finally on to sediment basins. The final sediment basin discharge point may be directly adjacent to its inlet and in time of flow, basin may not be providing optimum retention / opportunity for settlement. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.</p> <p>On the western side of the graded sub-soil stockpile adjacent to Wean road, a breach in a perimeter bund downslope of the haul road was identified.</p>	O (Non-compliant)	Repair the breach in the perimeter bund. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.
k	Areas being rehabilitated will be regularly inspected and assessed against the long and short-term rehabilitation objectives. During regular inspections, aspects of rehabilitation to be monitored will include: Evidence of any erosion or sedimentation from areas with establishing vegetation cover; Success of tree and shrub plantings; Adequacy of drainage controls; Presence/absence of weeds; and General stability of the rehabilitation site.	<p>Monthly environment checklists include section on land management/rehabilitation areas which includes all checks as listed.</p> <p>January 2019 checklist identifies the Trees are not in adequate condition with dry weather effecting tube stock. Further notes need for infill planting and identifies erosion issues on western emplacement.</p> <p>With regard to subsoil stockpiles this is noted as requiring analysis.</p> <p>Monthly inspections include all items required of the condition.</p>	O (Compliant) "	Findings from the monthly inspections are not tracked and rely upon site environmental specialists to follow-up.
	Where the rehabilitation success appears limited, maintenance activities will be initiated. These may include re-seeding and where necessary, re-topdressing and/or the application of specialised treatments such as composted mulch to areas with poor vegetation establishment. Tree guards will be placed around planted tube stock if grazing by native animals is found to be excessive.	Soil testing was conducted 23 January 2019 by Landloch to assess stockpiles to determine if topsoil or sub soil and quality of material.	O (Compliant)	Although compliance with this commitment is met it is worth noting that a topsoil and subsoil stockpile register is maintained and following Landloch testing a review and update of topsoil and subsoil balance is recommended.
m	If drainage controls are found to be inadequate for their intended purpose or compromised by grazing stock or wildlife, these will be repaired and/or temporary fences installed to exclude animals. Should areas of excessive erosion and sedimentation be identified, remedial works such as importation of additional fill, soil material and/or the redesigning of water management structures to address erosion will be undertaken.	<p>Site is fenced to exclude stock from mine lease area.</p> <p>Materials were present on site to ameliorate soils (gypsum and compost/mulch materials).</p> <p>The northern emplacement area has a series of banks that convey runoff to rock lined drains and finally on to sediment basins. The final sediment basin discharge point may be directly adjacent to its inlet and in time of flow, basin may not be providing optimum retention / opportunity for settlement. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.</p> <p>On the western side of the graded sub-soil stockpile adjacent to Wean road, a breach in a perimeter bund downslope of the haul road was identified.</p>	O (Non-compliant)	Repair the breach in the perimeter bund. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.
v	As per the commitments listed in Section 8.6, Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, top dressed and vegetated to provide a stable landform.	<p>Ecological conduct annual Rehabilitation Reports. At the start of the MOP (2015) 119.7ha had been rehabilitated. Reporting period is November through October from 2015 to 2020. The period Nov 2016 - October 2017 there was a requirement to rehabilitate 19.8 ha with no requirement to rehabilitate any further locations until after 2020.</p> <p>During reporting periods where there was no MOP requirement to conduct a specified area of rehabilitation, there is a requirement for replanting to address prior rehabilitation failure. Note the auditor observed large areas of rehabilitation failure across the site.</p>	O (Non-compliant)	Prepare a replanting plan to address rehabilitation failure.

No	Assessment Requirement	Comments	Compliance Status	Recommendations
b	Contractors, including all personnel and sub-contractors, will be advised of noise compliance limits prior to their work commencing. Contractors will be expected to take practical measures to limit noise generation during their activities where possible.	All employees and contractors are required to sign off on a site familiarisation form which talks to noise, lighting, water, dust, waste, heritage fauna. The process requires the contractor or employees responsible host to provide information on environmental obligations, however it does not provide specific criteria.	ANC	Provide criteria levels within the existing familiarisation process.
d	Site personnel will be required to pay due attention to site weather conditions and modify or stand down from operational activities if directed by mine management.	<p>Weather station is established on-site that is capable of continuous monitoring.</p> <p>Morning meetings at 8am - discuss environmental items including forecast wind conditions and dust from previous day. Noted this on site discussion board in meeting room. Assists with informing the sites operations.</p> <p>Review of met data indicates temperature at 2m and 10m is measured. A tab for calculating inversion is also included however a review indicates the stability class is missing. The Tarrawonga tower is at 60m and is used to access temperature inversion, however no alerts for inversion conditions are currently relayed. For blasting the page takes the Tarrawonga reading for the stability class and has an OK to blast if weather conditions are favourable.</p>	O (Compliant)	Consider the inclusion of stability classes to the inversion tab of the Sentinex program for the Rocglen site and investigate if alerts can be added to this page.
k	Drivers will be instructed to operate in accordance with an existing Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	Bis document identifies safety measures and behaviours expected of drivers to be implemented. Currently does not include statement regarding compression braking.	O (Compliant)	Include note about avoiding compression braking.
f	Chemical flocculation to help increase the settling times of the sediment (TSS) in the water column will also be employed as required.	Dom flocculation occurs and is tracked through Dam floc records. Current Environmental Officer has not had to flocculate during tenure on-site. Previous audit identified that Magnafloc LT425 Coagulant is used. Unknown if this is an EPA approved flocculant.	O (assumed compliant as proprietary product)	Confirm that this coagulant is approved by the EPA for use.
g	As required, appropriate drainage structures and erosion and sediment controls will be installed and maintained.	Sediment basin SD3 was observed to have been desilted. The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile. Scour was present in rehabilitation areas where revegetation has been unsuccessful. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	NC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site. Explore whether improvement to Dam B inlet and outlet location is possible.
j	Dirty water generated from disturbed areas to be captured and diverted using contour banks and drop structures in a manner that minimises the potential for concentrated overland flow and subsequent erosion. This water will be channelled through a series of sediment basins to reduce sediment loads prior to discharge.	Site inspection confirms installation of banks, contouring to divert water to sediment basins. Noted also some basins were undergoing desilting. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	O (Non-compliant)	Ensure that the inlet and outlet for Dam B are appropriately located to ensure retention time to allow sediment capture.
o	Sediment control structures will be maintained to ensure the design capacities are preserved for optimum settling rates. This will be most critical for those 'end-of-line' sediment basins that discharge from the Project Site.	<p>Desilting of sediment Basin SD3 was observed during the audit. Dams were predominately dry and currently optimum time for desilting. EO noted that there are other basins that could be desilted. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns.</p> <p>Environmental Officer identified no maintenance program - occurs on ad hoc basis.</p>	O (Compliant)	<p>Optimisation of settlement may be possible by minor modifications to Dam B.</p> <p>Schedule desilting of identified dams for current dry periods - can also possibly supplement topsoil if sampling deems suitable.</p>

No	Assessment Requirement	Comments	Compliance Status	Recommendations
i	Monitoring of groundwater levels will initially be undertaken on a monthly basis for the first year of the Project, after which the interval may potentially be relaxed subject to review of the results. In the longer term a monitoring interval of three months is anticipated. Samples will be analysed for all major ions, including carbonate.	Monitoring of groundwater levels was not completed initially on a monthly basis for the first 12 months of the Project. Groundwater level is measured quarterly and reported in the AEMR.	ANC	Monitoring of groundwater levels was not completed initially on a monthly basis for the first 12 months of the Project. No further actions are recommended as this is considered a legacy ANC.
j	Pressure transducers/dataloggers will be installed in monitoring bores MP-01 to MP-05 for the continual recording of groundwater levels. These instruments will be downloaded every 2 months. MP-04 and MP-05 will be deepened to at least 10 metres below the water table.	Dataloggers are installed in MP2a, MP3a, MP4a, MP5a. MP1 has been covered by the production area  Note is included to download every second month.  Pressure transducers/loggers installed in monitoring bores on site in accordance with the EA have shown relatively consistent groundwater levels at all 5 recording sites for the previous two years.  MP-5a is a piezometer installed directly adjacent to MP-5. Since monitoring commenced in March 2013, it showed a reasonably consistent SWL until September 2013, where the SWL dropped 4.4m to 71.25m. The SWL dropped a further 5.3m in November 2013, where it remained consistent at around 76.6m. For the previous three reporting periods the bore has remained consistently dry. Being in relatively close proximity to the open cut pit (within 1km), drawdown is not unexpected	O (Compliant)	Investigation required for groundwater level changes with MP5a
c	Strict erosion and sediment control measures will be installed, monitored and maintained to prevent the erosion and sedimentation impact on adjacent areas.	Sediment basin SD3 was observed to have been desilted. The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile. Scour was present in rehabilitation areas where revegetation has been unsuccessful. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	NC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site. Explore whether improvement to Dam B inlet and outlet location is possible.
b	All efforts will be made by Whitehaven to minimise disturbance within the Project Site.	The HMP was noted to be implemented in most cases observed, however with regard to the requirement to protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6), the auditor noted the fencing to be temporary in nature and in some places wind damaged.	O (Non-compliant)	The auditor recommends WHC upgrade fencing to enhance protection, monitoring and management of scarred trees (NPWS # 20-4-0194 and # 20-4-0195).
c	Liaisons will continue to be undertaken with the registered Aboriginal stakeholders and other interested parties until all issues in relation to the management of Aboriginal cultural heritage have been resolved.	No further issues have been raised/occurred during audit period however it is understood the registered Aboriginal stakeholders and other interested parties have not be consulted.	O (Compliant)	Liaison with the registered Aboriginal stakeholders and other interested parties should be undertaken to confirm adequate protection is provided for scarred trees.
e	Protective measures designed to prevent damage to the scarred trees (NPWS # 20-4-0194 and NPWS #20-4-0195) will be enacted upon as per recommendations in Appleton (2007) and the ACHMP (Whitehaven 2008c).	The HMP was noted to be implemented in most cases observed, however with regard to the requirement to protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6), the auditor noted the fencing to be temporary in nature and in some places wind damaged	O (Compliant)	The auditor recommends WHC upgrade fencing to enhance protection, monitoring and management of scarred trees (NPWS # 20-4-0194 and # 20-4-0195).

No	Assessment Requirement	Comments	Compliance Status	Recommendations
a	All efforts will be made by Whitehaven to minimise the visual impact of the mine during and post-operation.	Plans include establishment of a strip of rehabilitated bushland along the eastern site boundary, site wide strategic tubestock planting, and exclusion of stock from areas identified for bushland and pasture re-establishment through fencing.  Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area. Efforts have been made to plant trees in this area but the planting failed.  Bushland will be established once operations have finished in three years.	NC Duplicate	Consider installing visual screen along Wean Rd.
b	As per the commitments listed above in Section 8.6, Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, topdressed and vegetated. Early reshaping and revegetation of the external batter slopes of the emplacement areas will be targeted as a priority.	Ecological conduct annual Rehabilitation Reports. At the start of the MOP (2015) 119.7ha had been rehabilitated. Reporting period is November through October from 2015 to 2020. The period Nov 2016 - October 2017 there was a requirement to rehabilitate 19.8 ha with no requirement to rehabilitate any further locations until after 2020.  During reporting periods where there was no MOP requirement to conduct a specified area of rehabilitation, there is a requirement for replanting to address prior rehabilitation failure. Note the auditor observed large areas of rehabilitation failure across the site.	O (Non-compliant)	Prepare a replanting plan to address rehabilitation failure.
e	An earthen bund of appropriate height will be established between the realigned Wean Road and the active pit area. This bund will be vegetated immediately following construction. The bund will provide an effective visual screen of the site from Wean Road. In addition to the bund, a strip of bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road.	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area. Efforts have been made to plant trees in this area but the planting failed.  Bushland will be established once operations have finished in three years.	NC	Consider installing visual screen along Wean Rd.
f	Drivers will be instructed to operate in accordance with a Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	Bis document identifies safety measures and behaviours expected of drivers to be implemented. Currently does not include statement regarding compression braking.	O (Compliant)	Include note about avoiding compression braking.
b	Whitehaven will respond to any community complaints within 24 hours of receipt. All complaints will be investigated and the results of the investigation reported to the complainant in a timely manner.	Review of complaints indicates date/time of complaint is recorded. The date/time of responses is not recorded.	ANC	Consider including date/timeline of response to any complaints so that assessment against this commitment can be completed.
<b>Mining Licence 1620</b>				
b	The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Climate Change.	WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.  The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period. No overpressure levels recorded as exceeding 120dB (Lin Peak) during the audit period.	NC Duplicated with MCoA 3.5 and EPL L5.1	

No	Assessment Requirement	Comments	Compliance Status	Recommendations
27a	A security in the sum of \$100,000 must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof. Any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.	maximum aggregate sum of 5,751,000 shown in draft deed documentation.	O (Compliant)	Provide final authorised evidence of payment of Deed security deposit
<b>Environmental Protection Licence 12870</b>				
A3.1	Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence. In this condition the reference to "the licence application" includes a reference to: (a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and (b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	Works and activities generally carried out in accordance with the EPL, though non-compliances were identified as described throughout this table.	NC	As outlined against non-compliances and observations below
P1.1	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point	Short run of Roseberry HVAS B2 (EPL licence point 10) in 4 September 2018.	NC	Ensure HVAS monitoring continues at required frequency and duration.
L4.1	Noise generated at the premises must not exceed the noise limits in the table below.	Rocglen Coal Mine Annual Reviews for 2016 and 2017 identified one noise exceedance during the 2016 reporting period (1st August 2016 to 31st December 2016), and three exceedances during the 2017 reporting period (1st January 2017 to 31st December 2017). All exceedances were recorded at the Surrey property.	NC	Continue monitoring as per requirements - exceedances were predominantly at night. Nightworks will likely cease upon completion of mining activities in very near future (mid 2019) and works will focus rehabilitation to be undertaken during daytime period only
L5.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded	WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.	NC Duplicated with MCoA 3.5 and ML1620 (15(b))	No further action required

No	Assessment Requirement	Comments	Compliance Status	Recommendations
O4.1	<p>Offensive blast fume must not be emitted from the premises.</p> <p>Definition: Offensive blast fume means post-blast gases (whether visible or invisible, odorous or odourless) from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:</p> <p>(i) are harmful to (or is likely to be harmful to) a person that is outside the premises from which it is emitted, or</p> <p>(ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.</p>	<p><b>2016:</b> RCM did not exceed the blasting criteria for any blast during the reporting period. There was one incident of blast fume leaving the mine site which occurred on the 10 August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&amp;E on the 17 August 2016. On the 25 August WHC received a Notice to Provide Information requesting further information on the blast. Following submission of the required information, WHC received a second Notice to Provide Information on the 4 November 2016, with submission of the further requests made on the 17 November 2016. On 17 July 2017 further notice to provide information by the EPA.</p> <p>In addition, WHC received a Show Cause on 5 July 2016 in relation to a noncompliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.</p> <p>The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period.</p>	NC (duplicate CoA 3.5)	Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fume event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions.
O4.2	The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The PIRMP must document systems and procedures to deal with all types of incidents (e.g. spills, explosions, fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.	<p>PIRMP test on 3 August 2017 was actual incident in which 40L of diesel was lost.</p> <p>27 July 2018 wet weather discharge was the test.</p> <p>Signed statement of compliance document (31 July 2016 - 30 July 2017)</p> <p>All tests have been actual incidents.</p>	O (compliant)	Undertake test in accordance with PIRMP guidelines rather than incident occurring and forming the test.
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <p>(a) the date(s) on which the sample was taken;</p> <p>(b) the time(s) at which the sample was collected;</p> <p>(c) the point at which the sample was taken; and</p> <p>(d) the name of the person who collected the sample.</p>	<p>Date, time and point of sampling included in Excel spreadsheet.</p> <p>The sampler name is not included.</p>	O (Compliant)	Consider including the name of the sampler into the water monitoring excel sheet.
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Continuous weather monitoring not achieved due to communication issues, planned and unplanned maintenance and blockage of rain gauge by insects during reporting period	O (Compliant)	Weather station has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity
M2.2	<p>Air Monitoring Requirements</p> <p>Point 4,6 – dust</p> <p>Point 10 – PM10 (HVAS)</p> <p>Point 17 – PM10 (real time)</p>	Continuous weather monitoring not achieved due to communication issues, planned and unplanned maintenance and blockage of rain gauge by insects during reporting period	O (Compliant)	Weather station has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.
M2.4	For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.	<p>During the wet weather discharge event (20 November 2017), samples were collected as soon as practicable. RCM were unable to confirm the commencement time of the discharge.</p> <p>Stringent water management is employed on site, and additional control measures for utilisation in the event of a discharge are being investigated.</p>	NC	Implement any additional mitigation measures to allow for less than 12 hour response time

No	Assessment Requirement	Comments	Compliance Status	Recommendations
M2.5	For the purposes of the table(s) above Special Frequency 2 means the collection of samples quarterly (in the event of a flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.	As above	NC	As above
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to an utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Annual return identified methods used for analysing the concentration of pollutants discharged to an utilisation area were not all in accordance with the Approved Methods Publication and had not been approved in writing by the EPA before tests conducted. ALS were using updated methods for analysis that were not approved by the EPA at the time. The non-compliance was observed across all Whitehaven sites sampled by ALS. Approval for the updated methods used by ALS have been approved by ALS as demonstrated in RE: Water Quality Monitoring Alternative Methods - Approval Submission.	O (Compliant)	No further action required.
M4.1	For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.	Continuous weather monitoring not achieved due to communication issues, planned and unplanned maintenance and blockage of rain gauge by insects during reporting period	O (Compliant)	Weather station has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.
M4.2	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in this section.	Novacom undertakes 6 monthly maintenance of the weather station. While the weather station was maintained as required, continuous monitoring was not achieved due to the issues outlined above.	O (Compliant)	Weather station has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Blast fume incident that was reported to the NSW EPA was stated to be in accordance with the PIRMP but did not detail	O (compliant)	Consider adding the time of notification to the Environment Line as well as the Notification number to the written reports (and incidents register if not already included).
<b>Water Access Licences 36758</b>				
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date.	The water 'taken' is that which inflows from the aquifer and can only be estimated by water balance modelling. The total volumes are recorded each year and stated in the AEMR. The flow cannot be metered, thus a logbook (with typical recording requirements) as stated in MW06333-00001 cannot be met.	ANC	Modelling to be used to determine 'take' by groundwater inflow
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	As per MW0639-00001. The volume of 'take' by groundwater infiltration can e estimated by water balance modelling but cannot be metered. Volume of infiltration can be kept for 5 years.	ANC	Volume of infiltration can be kept for 5 years.
<b>Water Access Licences 29461</b>				
MW0635-00001	The licence holder must record the following in the logbook: (vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.	The spreadsheet includes water pumped and the limit that can be taken is also demonstrated (120 units). Does not include the groundwater inflows as prepared by the water balance	ANC	Update spreadsheet to include groundwater inflow

No	Assessment Requirement	Comments	Compliance Status	Recommendations
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date.	All items required are provided with the exception of 'purpose'. Environmental officer indicated that always for dust suppression.	ANC	Complete purpose component of the spreadsheet.
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	Spreadsheet is not strictly in accordance with log book.	ANC	Consider amending the existing Water Meter Reading Excel spreadsheet to include all logbook requirements.
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	Spreadsheet is not strictly in accordance with log book.	O (Non-compliant)	Consider including logbook requirements and record keeping requirements of the WAL into the Water Management Plan
<b>Mining Operations Plan</b>				
	A vegetated earthen bund of appropriate height will be maintained between the realigned Wean Road and the active pit area to provide an effective visual screen from Wean Road. In addition, a strip of bushland will be maintained in the post-mining landform to screen the view of the final void and generally improve the visual amenity from Wean Road.	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area. Efforts have been made to plant trees in this area but the planting failed.  Bushland will be established once operations have finished in three years.	NC	Consider installing visual screen along Wean Rd.
<b>Environment Management Strategy</b>				
	A review of the mine's compliance with all conditions of PA 10_0015 MOD 2, ML 1620, ML 1662, EPL 12870 and all other approvals and licences will be undertaken prior to (and included within) each Annual Review submitted to DPE and DRE. The Annual Review will also be provided to GSC, relevant agencies, the CCC and to the public on Whitehaven's website	Reviews of compliance against the conditions of the OA, ML, EPLS and other licences and approvals have not been completed in the AEMRs for 2016 and 2017. These were included in Appendix 3 for previous reporting years.	O (Compliant)	Consider including tables of the approvals in the Annex of the Annual Reviews with review of compliance completed.
<b>Blast Management Plan</b>				
	In the event that the monitoring results of a blast identify an exceedance of: • Peak vector sum velocity (ground vibration) – 5mm/s (ppv); and/or • Peak overpressure – 115dBL, RCM will initiate investigation as to the cause of the exceedance.	WHC received a Show Cause on 5th July 2016 in relation to a non-compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.  The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period.	NC  Duplicated with MCoA 3.5, EPL L5.1 and ML1620 (15(b))	Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fume event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions.
	RCM will notify DPE and EPA of any blasting related non-compliances or exceedances as soon as practicable after RCM becomes aware of the issue.	As above - WHC considered compliant hence not reported.	NC  Duplicated with MCoA 3.5, EPL L5.1 and ML1620 (15(b))	As above

No	Assessment Requirement	Comments	Compliance Status	Recommendations
<b>Rehabilitation Management Plan</b>				
	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and three square metres, respectively. Rock lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site. Consideration may also be given to trialling other erosion control devices or systems as rehabilitation processes across the site.	<p>Site inspection identified that banks were present on the eastern rehabilitated areas and conveyed runoff to a series of basins.</p> <p>The northern emplacement area has a series of banks that convey runoff to rock lined drains and finally on to sediment basins. The final sediment basin discharge point may be directly adjacent to its inlet and in time of flow, basin may not be providing optimum retention / opportunity for settlement. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.</p> <p>On the eastern side of the graded sub-soil stockpile adjacent to Wean road, a breach in a perimeter bund downslope of the haul road was identified.</p>	O (Non-compliant)	Repair the breach in the perimeter bund. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.
	Where stockpiles become weed infested, the top 150 millimetres should be scalped off and discarded prior to the remaining material being utilised for rehabilitation.	<p>Environmental field officer completes this on a campaign basis.</p> <p>Scalping is unlikely to occur due to shortages of topsoil.</p> <p>Register of herbicide usage not available for review. The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.</p> <p>No record of treatment for stockpiles prior to reuse.</p>	O (ANC)	Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re spreading/reuse on site.
	<p>In developing the rehabilitation monitoring program, the following aspects should be taken into consideration:</p> <ul style="list-style-type: none"> <li>Replicated monitoring sites should be established in representative rehabilitation areas of different ages.</li> </ul> <p>One monitoring site per 20 to 40 hectares is appropriate for each major age class of the rehabilitation areas.</p> <ul style="list-style-type: none"> <li>Sites should be monitored 12 months after establishment and then every two years.</li> <li>A standard monitoring plot design for areas rehabilitated with trees should be used:                             <ul style="list-style-type: none"> <li>- 2 metre by 2 metre quadrats – these will provide some estimate of statistical variance, so that if required, statistical analyses can be undertaken to objectively compare different rehabilitation treatments and changes over time;</li> <li>- a 20 metre by 10 metre plot overlying the 2 metre quadrats and located 5 metres either side of the centerline, for ease of monitoring; and</li> <li>- a 50 metre erosion monitoring transect on contour, running through the centre of the plot.</li> </ul> </li> </ul>	<p>AEMR 2017 indicates flora and fauna monitoring was conducted in 2017.</p> <p>Table in RMP indicates monitoring to be completed every two years – review of AEMRs indicates Eco Logical Report completed 2015 is the first report since the report was completed for the Project Extension in 2010.</p>	NC	No further action required
<b>Traffic Noise Management Plan</b>				
	A summary of noise monitoring results will be reported internally on a monthly basis as well as on a quarterly basis to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website ( <a href="http://www.whitehavencoal.com.au">www.whitehavencoal.com.au</a> ).	CCC meetings have moved from quarterly to six monthly therefore monitoring results are reported at this time. Review of CCC meeting minutes indicate monitoring is now undertaken on a 6 monthly basis. Results are included in the minutes.	ANC	Consider reviewing the reporting frequency to align with the CCC meeting frequency

No	Assessment Requirement	Comments	Compliance Status	Recommendations
<b>Water Management Plan</b>				
	Installing temporary erosion and sediment control devices as required (i.e. sediment fences, sand bag weirs) to minimise the discharge of sediment laden water from newly disturbed areas	Sediment basin SD3 was observed to have been desilted. The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile. Scour was present in rehabilitation areas where revegetation has been unsuccessful. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	NC Duplicated with SoC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site. Explore whether improvement to Dam B inlet and outlet location is possible.
	Implementing an effective revegetation and maintenance program for the site	<p>Drought is affecting revegetation success. Regarding is to occur on the western emplacement area.</p> <p>The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns.</p> <p>The auditor notes, a number of rehabilitation methods were trialled last year at Rocglen. As part of investigating alternative methods the Rocglen Environmental representative visited other WHC sites to investigate rehabilitation methods that might be suitable. Further there were efforts made for re planting on the northern face utilising improved tree planting methods from lessons from biodiversity team. In addition soil sampling was conducted to investigate improving soil quality.</p>	O (Compliant)  Duplicated with SoC	Develop a maintenance program and continue to investigate alternative rehabilitation methods to increase success.
	Water quality monitoring results for downstream watercourses (Driggle Draggie Creek and the unnamed creek to the south of the site) will be assessed, for each monitoring event, against key default trigger values presented in Table 7 and sourced from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000).	Unnamed drainage channel and Driggle Draggie Creek sampled for wet weather discharges analytes only (pH, TSS, TOC, and EC). No further testing or comparison to the ANZECC guidelines listed in Table 7 has occurred	NC	Consider the review of the water monitoring program and confirm the required analytical program and action accordingly.
	<p>A program to monitor creek line channel stability and health of riparian vegetation within Driggle Draggie Creek and the unnamed creek to the south of the site would be undertaken throughout the mine life. The monitoring would be undertaken along a short length of the downstream watercourses. General observations of stream health will be recorded during the quarterly water quality monitoring for these watercourses.</p> <p>Monitoring of the drainage lines would include:</p> <ul style="list-style-type: none"> <li>• Documenting general observations of water quantity and quality;</li> <li>• Documenting locations and dimensions of significant erosive or depositional features so that any subsequent changes can be evaluated quantitatively;</li> <li>• Establishing multiple photographic points at representative locations, so that photos can be taken over multiple inspections in a repeatable manner;</li> <li>• Written descriptions of the stream at each of the photographic points, focussing on evidence of erosion and exposed soils; and</li> <li>• Documenting general indicators of stream health, including abundance of flora and fauna.</li> </ul>	AEMR 2017 includes water quality sampling of the creek only.	NC	Consider the review of the creek monitoring program and action accordingly.

No	Assessment Requirement	Comments	Compliance Status	Recommendations
	The results will also be compared to relevant site operations and meteorological conditions to further interpret the results. This comparison between samples, between sampling periods and against other factors will assist in identifying whether the activities on the site are in fact affecting the water quality of the local catchment.	Review of Excel spreadsheet – comments column includes comment if rainfall has exceeded 90%tile or if no discharge. No comment on operations is noted.	ANC	If no discharge then consider adding results to surface water sampling sheet to remove confusion. In addition consider adding the rainfall reviewed the prior 5 days and note the activities on site that may impact water quality, such as earthworks/ground disturbance.
	Groundwater impact assessment criteria are contained in Table 10 below, and show trigger levels for groundwater levels and quality (pH, EC, TDS).	Pressure transducers/loggers installed in monitoring bores on site in accordance with the EA have shown relatively consistent groundwater levels at all 5 recording sites for the previous two years.	O (Compliant)	Consider graphs to demonstrate groundwater quality against criteria for demonstration of analysis.
	The following two methods are used to estimate groundwater inflows to the mining operations:  <ul style="list-style-type: none"> <li>• Whitehaven will monitor the volume of water pumped out of the pit. If this coincides with a period of low or no rainfall, this will be used directly as a measure of groundwater inflow. If this occurs during periods of rainfall the site water balance model will be used to estimate the rainfall runoff component and, by subtraction, estimate the groundwater inflow; and</li> <li>• Monitored bore water levels is used to estimate groundwater gradients towards the open cut pit, by triangulation. Estimated gradients would be used together with estimates of strata permeability to calculate groundwater flow rates toward the pit. This would be estimated annually as part of the groundwater model verification.</li> </ul>	Table 10 has been included in AEMRs to identify water volumes that inflow to the pit / and are actively taken from the pit via pumping and Table 12 includes water stored and used throughout the reporting period. Discussion of rainfall volumes is not provided in the AEMR. A separate water balance is prepared each year.	O (Compliant)	Consider including water sources including rainfall volumes and losses including evaporation in the Annual Review.

No	Assessment Requirement	Comments	Compliance Status	Recommendations
	<p>Groundwater exceedance procedure:</p> <ol style="list-style-type: none"> <li>1. Check and validate the data which indicates an exceedance of the assessment criteria / trigger level (as soon as possible and within 7 days).</li> <li>2. Notify NSW Department of Planning and Environment (DPE) and any other relevant department as soon as practicable (within 7 days after becoming aware of the exceedance).</li> <li>3. A preliminary investigation will be undertaken to identify the cause and determine whether changes to the groundwater management system are required. This will comprise analysis of the exceedance result, baseline groundwater monitoring, current monitoring results in the vicinity of the exceedance, meteorological conditions of the period, current site activities and adjacent land use activities, including pumping from nearby irrigation bores.</li> <li>4. A preliminary investigation report of the exceedance is to be prepared and submitted to the DPE and any other relevant department (within 28 days of the incident).</li> <li>5. Any further investigations recommended by the preliminary investigation report will be conducted in consultation with DPE and any other relevant departments (timeframe to be determined in consultation with DPE).</li> <li>6. Remedial measures will be developed in consultation with DPE and any other relevant department and implemented in response to the outcomes of the investigations (timeframe to be determined in consultation with DPE).</li> <li>7. In emergency situations water will be supplied to the impacted landholder within 7 days of the exceedance, at least on an interim basis, until investigations are completed.</li> <li>8. Additional monitoring would be implemented to measure the effectiveness of contingency measures where necessary (timeframe to be determined in consultation with DPE).</li> </ol>	<p>Review of results indicate some triggers may have been reached – refer above.</p>	<p>NC</p>	<p>Consider the review and check of data to confirm if trigger values have been reached for some parameters and action accordingly. Perhaps include comparison to triggers in table and or graphs to easily identify exceedances of trigger levels.</p>

## 4. CONCLUSION

An audit of MCoA conditions has been completed as well as a check against commitments made in the management plans developed as part of MCoA conditions for the site.

Overall, compliance was achieved with the audit documents that were reviewed. The number of non-compliances with the statutory conditions and implementation of the management plans is summarised in *Table 4.1* below:

**Table 4.1 Summary of Audit Findings**

Review	Non-compliances	Administrative non-compliance	Observations (C)	Observations (ANC and NC)
<b>Statutory Instruments</b>	16 (Low)	11	22	12
<b>Implementation of Plans</b>	8 (Low)	2	4	2

*\*Of the 24 non-compliance findings eight are duplicated findings*

An action response table has been developed by Whitehaven Coal addressing the recommendations and will be submitted separately to this report.

**APPENDIX A    CONDITIONS OF APPROVAL, STATEMENT OF  
COMMITMENTS, ENVIRONMENTAL PROTECTION LICENCE,  
MINING LEASE, WATER ACCESS LICENCE AND  
MANAGEMENT PLAN COMPLIANCE TABLES**

## **Conditions of Approval**

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>SCHEDULE 2 - ADMINISTRATIVE CONDITIONS</b>					
<b>Obligation to Minimise Harm to the Environment</b>					
2.1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.	This audit	Review of management plans, implementation of plans and site inspection to confirm - refer tables of this audit.	Note	
<b>Terms of Approval</b>					
2.2	The Proponent shall carry out the project: (a) generally in accordance with the EA; (b) in accordance with the statement of commitments; and (c) in accordance with the conditions of this approval.	Rocglen Extension Project Environmental Assessment	Review against MCoA and Statement of Commitments which generally reflect the EA commitments and undertakings for current stage of works.  Refer to Statement of Commitments table below for assessment of compliance.	C	
2.3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Note	Noted	Note	
2.4	The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.	Note	Noted	Note	
<b>Limits On Approval</b>					
2.5	The Proponent may carry out mining operations on the site until the end of December 2022.	Interview - Mine Operations Manager	Mining is planned to cease in June 2019 with rehabilitation activities only to occur after this date. Closure Mine Operations Plan is currently being drafted and is to be submitted March 2019.	C	
<b>COAL EXTRACTION</b>					
2.6	The Proponent shall not extract more than 1.5 million tonnes of ROM coal from the site in a calendar year.	Interview - Graduate Environment Officer  Annual Reviews 2016 - 2018 (draft data for 2018) Coal Movement Records	Volume of extraction of coal confirmed through survey of the site - reports issued to Mine Manager. 2016: 1,259,744 Tonnes 2017: 1,387,519 Tonnes 2018: 1,206,300 Tonnes 2019 (January): 93,834 Tonnes	C	
2.6a	For the period up until the commissioning of the Kamilaroi Highway overpass, the Proponent: (a) may not transport more than 1.5 million tonnes of ROM coal from the site in any calendar year; (b) shall transport all coal from the site to the Whitehaven CHPP via the approved haulage route; and  (c) shall, together with the owners of the Tarrawonga and Vickery coal mines, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.0 million tonnes per year during calendar years 2017 and 2018; and  (d) shall, together with the owners of the Tarrawonga and Vickery coal mines, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 3.5 million tonnes each year during all other calendar years	Interview - Graduate Environment Officer  Annual Reviews 2016 - 2018 (draft data for 2018)  Coal Movement Records	Production reports available on the Whitehaven website for Rocglen Mine confirms transport of coal from site is below 1.5Mtpa (refer above).  Coal movements for Tarrawonga and Rocglen are below 3.5Mtpa along the haul route during the audit period (no extraction from Vickery) (Totals for period: 2016 3.496MT ; 2017 3.924 MT; 2018 3.515 MT  The tracking of coal transport is done through the central logistics manager at Gunedah CHPP through CoalTrack.	C	
2.6b	For the period following the commissioning of the Kamilaroi Highway overpass, the Proponent: (a) may not transport more than 1.5 million tonnes of ROM coal from the site in any calendar year; (b) shall transport all coal from the site to the Whitehaven CHPP via the approved haulage route and the Kamilaroi Highway overpass; and (c) shall, together with the owners of the Tarrawonga and Vickery coal mines, ensure that the cumulative haulage of coal along the approved haulage route does not exceed 4.5 million tonnes.	Interview - Graduate Environment Officer	The Kamilaroi Highway overpass has not been constructed.	NT	
<b>Structural Adequacy</b>					
2.6c	The proponent shall not receive more than 700,000 tonnes of coarse and/or fine rejects on the site in any calendar year.	Annual Reviews	Volume of rejects tracked by Logistics Manager and included in the annual reviews. The site does not receive rejects above the limit. 1/8 /2015 - 31/12 2016: 683,193 tonnes 2017: 135,256 tonnes 2018: 171,179 tonnes 2019 (January): 32,983 tonnes	C	
<b>Surrender Of Existing Project Approval</b>					
2.7	By the end of September 2012, or as otherwise agreed by the Secretary, the Proponent shall surrender the existing project approval for the Rocglen Coal Mine (06_0198) in accordance with section 75YA of the EP&A Act.	Interview - Graduate Environment Officer  Letter 25 September 2012 to DP&I  Email 24 October 2012 from DP&I	Letter to DP&I formally requesting surrender in September 2012.  Email received from DP&I October 2012 requesting confirmation of land ownership with approval from the landholder required consenting to the surrender. The surrender of this approval has not been completed.	ANC	Assessment of additional PA 06_198 conditions has been completed in lieu of this approval being surrendered.  The surrender of PA06_0198 is dependent upon consent of the owners of the land covered by the PA, the achievement of which is affected by ongoing discussion between WHC/GSC regarding transfer of ownership of a section of Wean Road.
2.8	Prior to the surrender of project approval 06_0198, the conditions of this approval shall prevail to the extent of any inconsistency between the two approvals.	Note	Project Approval surrender has been submitted but not finalised.	ANC	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Structural Adequacy</b>					
2.9	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	Interview - Graduate Environmental Officer	No additional construction of buildings or structures completed during the audit period.	NT	
<b>Demolition</b>					
2.1	The Proponent shall ensure that all demolition work on site is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Interview - Graduate Environmental Officer	No demolition of structures has occurred during the audit period.	NT	
<b>Operation Of Plant And Equipment</b>					
2.11	The Proponent shall ensure that all the plant and equipment used on site, or to transport coal from the site, is:  (a) maintained in a proper and efficient condition; and  (b) operated in a proper and efficient manner.	Interview - Maintenance Manager  Weekly Scheduling	Mine equipment is inspected daily as part of prestart. Weekly scheduling sighted and prestart checklists sighted includes details of checks required. Any defects are managed through "Pulse" program. The weekly scheduling document is tracked through Excel spreadsheet which is appropriate to the scale of maintenance undertaken by Whitehaven Coal.  Contractors maintain own equipment. Transport of coal is completed by BIS Industries which operate Qube under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness which are carried in the vehicle.	C	
<b>Updating &amp; Staging Strategies, Plans Or Programs</b>					
2.12	With the approval of the Secretary, the Proponent may submit any strategies, plans or programs required by this approval on a progressive basis.  To ensure the strategies, plans or programs under the conditions of this approval are updated on a regular basis, the Proponent may at any time submit revised strategies, plans or programs to the Secretary for approval.  With the agreement of the Secretary, the Proponent may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this approval.	Approval TMP, Correspondence with DPE 12 July 2018 Approval  Environmental Management Plans, Correspondence with DPE 12 July 2018:	All plans required to date have been submitted for the project. During the audit period WHC has updated the BMP, AQGHG, WMP, HMP and EMS. Correspondence from DP&E dated 12 July 2018 states that the management plans listed have been reviewed and address requirements of Condition 12, 17, 22 and 24 Schedule 3 and Condition 1 of Schedule 5.  The Traffic Management Plan (revision 2, March 2017) has been reviewed by DP&E in consultation with Council and NSW RMS and correspondence to WHC 12 July 2018 confirms DP&E is satisfied the TMP addresses Condition 27 of Schedule 3.	C	
2.13	The Proponent shall continue to implement the existing strategies, plans or programs that apply to any development on site under project approval 06_0198 until they are replaced by an equivalent strategy, plan or program approved under this approval.	Note	Noted	Note	
<b>Protection Of Public Infrastructure</b>					
2.14	Unless the Proponent and the applicable authority agree otherwise, the Proponent shall:  (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and  (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.	Independent Environmental Compliance Audit - Umwelt (2013)  Road Maintenance Agreement issued August 2009	Wean Rd is the only infrastructure requiring relocation as a result of the project.  Ongoing agreement with the GSC stipulates requirements for the company to maintain public roads used by the project. Road Infrastructure Coordinator based at the CHPP is the contact for GSC with any concerns regarding road conditions managed through this position.	C	
<b>SCHEDULE 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS</b>					
<b>Noise Criteria</b>					
3.1	The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 1 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.  However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.	06261_6711_rpt_Sep16(1).pdf - Spectrum Acoustics attended noise monitoring September 2016  Quarter 1 Environmental Noise Monitoring report by Global Acoustics (Rocglen Coal Mine - Noise monitoring Quarter 1 2017.pdf)  Quarter 2 Environmental Noise Monitoring report by Global Acoustics (Rocglen Coal Mine - Noise monitoring Quarter 2 2017.pdf)  Quarter 3 Environmental Noise Monitoring report by Global Acoustics (Rocglen Coal Mine - Noise monitoring Quarter 3 2017.pdf)  2017_08_eventreport-noise exceedance. Example of correspondence with the EPA and DPE following exceedance. Correspondence was observed with these stakeholders was observed for all exceedances.  DPE warning letter - 4302_001.pdf  Roseberry is under private agreement.	Environmental Officer - exceedances in 2016 and 2017.  - 6 September 2016 exceedance during daytime at N2 due to environmental conditions and mining operations. No complaints or alarms received so operations continued unaltered. identified that alternate consultant was to undertake additional monitoring. Warning letter was provided by the DPE with regards to this exceedance. Additional monitoring was undertaken.  - 24 March 2017 exceedance during night time period at N2. Exceedance caused by environmental conditions and mining operations. No alterations to operations/management occurred as no alarms were raised or complaints received, and the identification of the exceedance would likely have been identified after the fact, when modification factors were applied during reporting.  - 24 May 2017 exceedance of criteria at Surrey and EPL point N2. Drill maintenance was being undertaken during the night period and caused the exceedance (due to revving of the drill). The maintenance was stopped, and a subsequent measurement returned compliant.  Evening of August 14, and night of August 15, 16 2017 using low frequency modifying factors correction at N2 at Surrey and identified that the modified noise levels exceeded. No alterations to operations/management occurred as no alarms were raised or complaints received, and the identification of the exceedance would likely have been identified after the fact, when modification factors were applied during reporting.  In all cases the EPA was notified as per documents listed	NC	No further action required

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Road Traffic Noise Criteria</b>					
3.2	<p>The Proponent, together with the owners of the Tarrawonga and Vickery coal mines, shall ensure that the noise generated on public roads by the project and the other mines, does not exceed the criteria in Table 2 at any existing residence on privately-owned land.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p> <p>Note: Traffic noise generated by the project is to be measured in accordance with the relevant procedures in the NSW Road Noise Policy</p>	<p>Environmental officer interview</p> <p>2018_01_Event report_cumulative noise monitoring (missed monitoring event)</p> <p>Rocglen show cause response.pdf (missed monitoring event)</p> <p>2016 six monthly attended traffic noise reports</p>	<p>Missed a 6-monthly attended road traffic noise monitoring event in 2017. All other monitoring events were compliant. Show cause notice from DPE was received.</p> <p>CMO - computer program with all conditions for tracking and prompting for undertaking monitoring is now in place.</p> <p>Official warning was issued 21 March 2018.</p> <p>2016 six monthly attended traffic noise reports observed compliance noted</p>	ANC	Ongoing monitoring. Monitoring was completed in 2016 and 2018 confirming compliance during the audit period.
<b>Operating Conditions</b>					
3.3	<p>The Proponent shall:</p> <p>(a) implement best practice noise management to minimise the operational, low frequency, and road traffic noise generated by the project;</p> <p>(b) minimise the noise impacts of the project during temperature inversions; and</p> <p>(c) regularly assess the real-time noise monitoring and meteorological forecasting data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>	<p>Site Inspection</p> <p>Environmental officer interview</p> <p>Re: Enviro Audit Query</p>	<p>Previous audit identified that temperature inversion alarms should be enabled on the meteorological station. Environmental officer identified that no inversion alarms have been received and recommendation unlikely to have been implemented.</p> <p>Email from novecom (meteorological station operators) identified that alarms could be incorporated.</p>	O (Compliant)	Previous audit recommendation to investigate the addition of temperature inversion alarms on the meteorological station to enable adjustment of operations accordingly remains. However, there is no specific condition requiring inversion alarm.
<b>Noise Management Plan</b>					
3.4	<p>The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of December 2011;</p> <p>(b) describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval;</p> <p>(c) describe the measures that would be implemented to ensure the noise impacts generated by project-related traffic on the Kamilaroi Highway overpass are minimised as far as practicable; and</p> <p>(d) include a noise monitoring program that:</p> <ul style="list-style-type: none"> <li>uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and</li> <li>includes a protocol for determining exceedances of the relevant conditions of this approval.</li> </ul>	<p>Environmental officer review.</p> <p>DPE approved version from 2016 Noise Management Plan.</p>	<p>25 May 2018 revision submitted to the DPE. Modifications were to append Road traffic noise management plan was appended to consolidate plans. Yet to receive approval from the DPE.</p> <p>Kamilaroi Highway overpass has not been constructed.</p>	C	Environmental officer has followed up - awaiting DPE approval.
<b>BLASTING</b>					
<b>Blasting Criteria</b>					
3.5	<p>The Proponent shall ensure that the blasting on site does not cause exceedances of the criteria in Table 3.</p> <p>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</p>	<p>Monitoring Results</p> <p>Annual Reviews</p> <p>Correspondence with EPA; 4 November 2016, 17 November 2016, 17 July 2017.</p> <p>WHC response to DP&amp;E Show Cause 6 July 2016</p> <p>EPL Licence variation 4 Sept 2017</p>	<p>2016: RCM did not exceed the blasting criteria for any blast during the reporting period. There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&amp;E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast. Following submission of the required information, WHC received a second Notice to Provide Information on the 4th November 2016, with submission of the further requests made on the 17th November 2016. On 17 July 2017 further notice to provide information by the EPA. At the time of writing further information on current status requested from WHC.</p> <p>In addition, WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.</p> <p>The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period.</p>	NC	Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fume event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions.

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Blasting Hours</b>					
3.6	The Proponent shall only carry out blasting on site between 9am and 5pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary.	Environmental Blast Monitoring Excel Spreadsheet	Results checked for timing of blasts – all blasts within stipulated hours and days. Review of selection of shot reports confirms times match register.	C	
<b>Blasting Frequency</b>					
3.7	The Proponent shall not carry out more than one blast a day on site, unless an additional blast is required following a blast misfire.	Environmental Blast Monitoring Excel Spreadsheet	Results confirm no more than one blast per day has been completed during audit period	C	
<b>Property Inspections</b>					
3.8	<p>If the Proponent receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit on site, or other landowner nominated by the Secretary, for a property inspection to establish the baseline condition of any buildings and/or structures on their land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> <li>establish the baseline condition of the buildings and/or structures on the land or update the previous property inspection report; and</li> <li>identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and</li> </ul> <p>(b) give the landowner a copy of the new or updated property inspection report.</p>	<p>Independent Environmental Compliance Audit - Umwelt (2013)</p> <p>Interview - Graduate Environmental Officer</p>	<p>Reports completed at the Surrey and Brolga residences in 2008 – refer previous audit report.</p> <p>No further written request have been received during the audit period.</p>	NT	
<b>Property Investigations</b>					
3.9	<p>If the owner of any privately-owned land claims that the buildings and/or structures on their land have been damaged as a result of blasting on site, then within 2 months of receiving this claim the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Secretary.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>	<p>Interview - Graduate Environmental Officer</p> <p>Structural Inspection Report, Kelley Covey Group Pty Ltd, August 2016.</p>	Surrey residence requested a structural inspection prior to the current audit period, however the inspection was completed in May 2016 with the report being issued August 2016. The report concluded that the dwelling has not has any detrimental blasting associated damage.	C	
<b>Operating Conditions</b>					
3.10'	<p>The Proponent shall</p> <p>(a) implement best blasting management practice on site to:</p> <ul style="list-style-type: none"> <li>protect the safety of people and livestock in the surrounding area;</li> <li>protect public or private property in the surrounding area; and</li> <li>minimise the dust and fume emissions of the blasting; and</li> </ul> <p>(b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.</p>	<p>Blast Notification Checklists - 15 February 2019</p> <p>Blast exclusion zone maps - 15 February 2019</p> <p>Interview Graduate Environment Officer</p>	<p>Rocglen has blast notification checklists which lists all stakeholders to be contacted prior to blasts. The list is completed with date of notification (email and/or phone which is dependent on requested format). The checklist includes the next upcoming blast which gives preferably 24 hours' notice. There is no other public notification system in place for general public or community.</p> <p>Exclusion zones are calculated for each blast to prevent damage to livestock/public by the site surveyor. These are sent to the OCE, administration for the notifications, mine engineer, maintenance manager, safety manager, blast engineer, BIS Industries Manager as well as the environment officer.</p> <p>When Wean Road is within the exclusion zone, sentries are in place on the road at the start and end of the exclusion zones during the blast period to prevent traffic using Wean Rd past the mine site.</p>	C	
3.11	<p>The Proponent shall not carry out any blasting on site that is within 500 metres of:</p> <p>(a) a public road without the approval of Council; and</p> <p>(b) any land outside the site that is not owned by the Proponent, unless:</p> <ul style="list-style-type: none"> <li>the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Secretary in writing of the terms of this agreement; or</li> <li>the Proponent has demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the land, without compromising the safety of people or livestock, or damaging the buildings and/or structures on the land; and</li> </ul> <p>updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.</p>	<p>Interview - Graduate Environment Officer</p> <p>Blast Management Plan</p> <p>Sale Contract - Roseberry</p>	<p>Landowner potentially impacted by this condition is Roseberry. Land is owned by WHC therefore written agreement is not required however the manager of this property is provided with verbal notification</p> <p>Blast Management Plan lists measures for blasting within 500m of a public road and property.</p> <p>Agreement has been reached with GSC to not notify for every blast.</p>	C	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Blast Management Plan</b>					
3.12	The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of December 2011; (b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval; and (c) include a blast monitoring program to evaluate the performance of the project.	Environmental Management Plans, Correspondence with DPE 12 July 2018:	During the audit period WHC updated the BMP. Correspondence from DP&E dated 12 July 2018 states that the management plans listed have been reviewed and address requirements of Condition 12, Schedule 3.  The Traffic Management Plan (revision 2, March 2017) has been reviewed by DP&E in consultation with Council and NSW RMS and correspondence to WHC 12 July 2018 confirms DP&E is satisfied the TMP addresses Condition 27 of Schedule 3.	C	
<b>AIR QUALITY &amp; GREENHOUSE GAS</b>					
<b>Odour</b>					
3.13	The Proponent shall ensure that no offensive odours, as defined under the <i>Protection of the Environment Operations Act 1997 (POEO Act)</i> , are emitted from the site.	Environmental Officer Interview.  Site complaints register  monthly environmental inspection checklist  Spontaneous combustion principal hazard management plan	No odour was identified during the site inspection.  Environmental officer identified - No complaints during the audit period relating to odour.  There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast. 14 April 2016 9.50 - complaint received from EPA relating to blast fume from between 12.45 and 1pm.  Spontaneous combustion would be the primary cause of odour - Spontaneous combustion principal hazard management plan is in place for the ROM to prevent occurrence.	NC	WHC and EPA were in correspondence about final outcome from fume incident at time of audit.  Previous recommendation for inclusion of presence/absence of odour within the monthly inspection list has not been incorporated.
<b>Greenhouse Gas Emissions</b>					
3.14	The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.	Environmental officer interview EMECO OC SRV PLAN 2018 ROCGLEN  Whitehaven Group NGER Spreadsheet 2018_Master_updated 20181016 1800219 - weekly maintenance plan  Air Quality and Greenhouse Gas Management Plan	An example of maintenance schedule and weekly plan was provided to demonstrate that system in place for maintaining and inspecting plant. The schedule indicated that 250 hour service and defects undertaken on plant.  The site has an Air Quality and Greenhouse Gas Management Plan - an assessment of previously identified non-compliances has been undertaken and is provided further in this Appendix.	C	
<b>Air Quality Criteria</b>					
3.15	The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the particulate emissions generated by the project do not exceed the criteria listed in Tables 4, 5 and 6 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.	Environmental Officer Interview  Air Quality and Greenhouse Gas Management Plan  Annual Review 2018 EC Rework_Draft (evidence of review of AQ data and determination of whether mine related or not.  Rocglen Monitoring Points.xls  Reworked HVAS Spreadsheet Rocglen PM10 HVAS Data  Dust monitor Audit 20150220.pdf (specific to DPE additional investigation item)  Sentinex daily dust monitoring summary from TEOM (SX99 - G3-dustmetchart-20190219.pdf) - Includes wind speed, direction and rainfall (as well as PM10)	Annual average limit for deposited dust was exceeded at two locations (one was WHC owned land - 'Belah', an unoccupied property) and privately owned 'Penryn'. Investigation identified that these events were unlikely to be mine related given that predominant wind directions were not from the mine to the direction of the gauges.  Costa vale HVAS (non-EPL related sampler) demonstrated five exceedances in 2018 but investigation revealed that none were due to mine activity based on prevailing wind direction not being towards monitors, regional dust storm events or when mine was not operating. Four exceedances at Costa Vale in 2017. The exceedances occurred on a Sunday when the mine was not operating and the remaining three events were deemed not mine related due to the prevailing wind conditions. Roseberry demonstrated one exceedance in 2018 and was due to regional dust event. No exceedance at Roseberry in 2017. No exceedances identified for either sampler in 2019.  TEOM is only used for management - alarms sent to relevant staff. Update to AQMP in 2018 clearly stated that the TEOM is for management only.  Audit on 20 February 2015 demonstrates assessment into clearance from structures, 10m from tree dripline, unrestricted air flow around inlet and >5m from source. BD3 and BD8 had items to be addressed in terms of siting. Height of gauge also assessed. BD7 outside of margin for error of 0.2m. Environmental officer did not know whether items raised were addressed as it was prior to her tenure.  Co-ordinates of deposited dust gauges, TEOM and HVAS's were provided in Rocglen Monitoring Points spreadsheet.  24 hour averages of TEOMs are provided by email but not recorded within a tracking spreadsheet (the TEOM is used as a management tool only). The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM10 criteria is reached so that actions can be completed immediately.	C	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Operating Conditions</b>					
3.16	<p>The Proponent shall:</p> <p>(a) implement best practice air quality management on site, including all reasonable and feasible measures to minimise odour, fume and dust emissions generated by the project, including those generated by any spontaneous combustion on site,</p> <p>(b) minimise any visible air pollution generated by the project;</p> <p>(c) minimise the surface disturbance on site; and</p> <p>(d) regularly assess the real-time air quality monitoring and meteorological forecasting data, and relocate, modify and/or stop operations on site to ensure compliance with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>	<p>Reworked HVAS Spreadsheet Rocglen PM10 HVAS Data</p> <p>Sentinex daily dust monitoring summary from TEOM (SX99 - G3-dustmetchart-20190219.pdf) - Includes wind speed, direction and rainfall (as well as PM10)</p>	<p>Site has one real time air quality monitoring via a Tapered Element Oscillating Microbalance (TEOM) monitor (PM10) at Roseberry. The data provided from this TEOM is used to inform if additional works are required on site for dust prevention or mitigation through email and text messages to OCE and Environmental Officer.</p> <p>Morning meetings at 8am - discuss environmental items including forecast wind conditions and dust from previous day. Noted this on site discussion board in meeting room. Assists with informing the sites operations.</p> <p>There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&amp;E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast. Following submission of the required information, WHC received a second Notice to Provide Information on the 4th November 2016, with submission of the further requests made on the 17th November 2016. On 17 July 2017 further notice to provide information by the EPA.</p> <p>Dust carts observed on-site, but not watering roads at time observed. Coal conveyors were not in operation during site inspection.</p>	NC	The August 2016 incident is being managed by WHC in correspondence with EPA. The incident is ongoing and WHC are responding in a timely manner to EPA requests.
<b>Air Quality &amp; Greenhouse Gas Management Plan</b>					
3.17	<p>The Proponent shall prepare and implement an Air Quality &amp; Greenhouse Gas Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of December 2011;</p> <p>(b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time air quality management system that employs reactive and proactive mitigation measures; and</p> <p>(c) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> <li>uses a combination of real-time monitors, high volume samplers and dust deposition gauges to evaluate the performance of the project; and</li> <li>includes a protocol for determining exceedances of the relevant conditions of this approval.</li> </ul>	<p>Site Inspection</p> <p>DPE Approval letter - Approval of Rocglen MPs July 2018.pdf</p>	<p>Air Quality and Greenhouse Gas Management Plan (Edition 2, Revision 4, dated May 2018) was approved by the DPE.</p> <p>Interview with Environmental Officer identified that the modifications were predominately related to administrative changes, update to reflect approvals.</p> <p>Air quality/dust monitoring equipment was observed on-site during the inspection and was appropriately located.</p>	C	
<b>METEOROLOGICAL MONITORING</b>					
3.18	<p>During the life of the project, the Proponent shall ensure that there is a meteorological station operating in the vicinity of the site that:</p> <p>(a) complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline; and</p> <p>(b) is capable of continuous real-time measurement of temperature lapse rate in accordance with the NSW Industrial Noise Policy, or as otherwise agreed by the EPA.</p>	<p>Interview with Environmental Officer.</p> <p>Site inspection - weather station on mine site observed and photographed.</p> <p>Sentinex database stores all recorded information.</p> <p>AEMR 2017</p>	<p>Continuous monitoring was not achieved due to communication issues and breakdowns causing data gaps. During the 2017 the meteorological station was relocated to an approved onsite location in an attempt to reduce the number of connectivity problems. The relocation, along with installation of a remote reset unit, has improved performance.</p> <p>Review of met data indicates temperature at 2m and 10m is measured. A tab for calculating inversion is also included however a review indicates the stability class is missing. The Tarrawonga tower is at 60m and is used to access temperature inversion, however no alerts for inversion conditions are currently relayed. For blasting the page takes the Tarrawonga reading for the stability class and has an OK to blast if weather conditions are favourable.</p> <p>EPA acknowledged instruments require reasonable maintenance/repair and periodic time to do so.</p>	C	
<b>MINING</b>					
3.19	<p>The Proponent shall ensure that the auger mining carried out on site:</p> <p>(a) is restricted to the areas approved for auger mining;</p> <p>(b) is designed to remain safe and stable in the long term; and</p> <p>(c) does not result in vertical subsidence of greater than 20 mm.</p>	Environmental Officer interview	Environmental Officer identified that no auger mining is undertaken on-site.	NT	
<b>SOIL &amp; WATER</b>					
<b>Water Supply</b>					
3.20'	The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations on site to match its available water supply to the satisfaction of the Secretary.	Canyon Groundwater Investigation- Evap	<p>Coal crusher reduced operations.</p> <p>Water currently being sourced from Canyon due to deficit at Rocglen due to drought Survey of 121ML at Canyon (Canyon Groundwater Investigation- Evap). SLR investigation into groundwater seepage at Canyon. To stop sourcing coal in June 2019</p>	O (Compliant)	Water for rehabilitation to be considered in the water balance/required water supply in the future.

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Surface Water Discharges</b>					
3.21	The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.	ES1729370_0_COA 2017_11_event report-water discharge-EP Environmental officer interview Rocglen Wet Weather Discharge Data	No uncontrolled discharge occurred in 2018 or 2019 at the time of the audit. Only one uncontrolled discharge in 20 November 2017. ES1729370_0_COA _ sample analysis from this event. Manual rainfall gauge results recorded (electronic gauge was blocked by ants). All adjacent stations recorded the volume of the large rainfall event as documented in 2017_11_event report-water discharge-EPA. The discharging runoff was sampled and was above criteria but event was above design storm event	C	
<b>Water Management Plan</b>					
3.22	The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be prepared in consultation with the EPA, DoI Lands and Water and DRG by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and submitted to the Secretary for approval by the end of February 2012. In addition to the standard requirements for management plans (see condition 2 of schedule 5), this plan must include:	Approval of Rocglen MPs July 2018.pdf Environmental officer interview	Revised in 2018 after annual review. Approval of Rocglen EMPs July 2018 document (Approval of Rocglen MPs July 2018.pdf) was observed. Approved document was WMP Edition 1, Revision 4 dated May 2018. Environmental officer indicated that changes were predominately administrative rather than management focussed.	C	
3.22a	a) a Site Water Balance that: <ul style="list-style-type: none"><li>• includes details of:<ul style="list-style-type: none"><li>o sources and security of water supply;</li><li>o water use on site;</li><li>o water management on site;</li><li>o any off-site water transfers;</li></ul></li><li>• describes what measures would be implemented to minimise water use on site; and</li><li>• is to be updated each year during the annual review;</li></ul>	27072018094721-0001.pdf - Letter from Ashurst Lawyers 630.12130_RCM Site Water Balance 2017 Final 1471-01-D1 WB Final - WRM 2018 Site water balance	Water for mining operations is currently being sourced from Canyon mine void as deficit in available water at Rocglen 27072018094721-0001.pdf - Letter from Ashurst Lawyers to confirm use of water from Canyon void for Rocglen and Tarrawonga in dry years. States that it is pursuant to the Rocglen project approval. SLR 2017 Rocglen Coal mine 2017 site water balance (630.12130_RCM Site Water Balance 2017 Final. 1471-01-D1 WB Final - WRM 2018 Site water balance. Environmental Officer indicated that identified deficit in dry year - hence investigation into Canyon water supply. Aforementioned two water balances demonstrate updates each year.	C	
3.22b	(b) a Surface Water Management Plan, that includes: <ul style="list-style-type: none"><li>• a detailed description of the water management system on site, including the:<ul style="list-style-type: none"><li>o clean water diversion systems;</li><li>o erosion and sediment controls; and</li><li>o water storages;</li></ul></li><li>• detailed plans, including design objectives and performance criteria, for:<ul style="list-style-type: none"><li>o design and management of the final void;</li><li>o reinstatement of drainage lines on the rehabilitated areas of the site; and</li><li>o control of any potential water pollution from the rehabilitated areas of the site;</li></ul></li><li>• performance criteria for the following, including trigger levels for investigating any potentially adverse impacts:<ul style="list-style-type: none"><li>o the water management system;</li><li>o surface water quality in Driggle Draggie Creek or the unnamed creek to the south of the site;</li><li>o the health of any riparian vegetation in Driggle Draggie Creek or the unnamed creek to the south of the site;</li></ul></li><li>• a program to monitor:<ul style="list-style-type: none"><li>o the effectiveness of the water management system;</li><li>o surface water flows and quality in Driggle Draggie Creek and the unnamed creek to the south of the site;</li><li>o the health of any riparian vegetation in Driggle Draggie Creek or the unnamed creek to the south of the site; and</li></ul></li><li>• a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project;</li></ul>	Water Management Plan	Section 4 of the WMP addresses all requirements. The site inspection involved observation of surface water monitoring locations.	C	
3.22c	(c) a Groundwater Management Plan, which includes: <ul style="list-style-type: none"><li>• performance criteria, including trigger levels for investigating any potentially adverse groundwater impacts;</li><li>• a program to monitor:<ul style="list-style-type: none"><li>o groundwater inflows to the mining operations;</li></ul></li><li>o the impacts of the project on any alluvial aquifers;</li><li>o the seepage/leachate from water storages, backfilled voids, and the final void on site;</li><li>• a program to validate the groundwater model for the project, and calibrate it to site specific conditions; and</li><li>• a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse groundwater impacts.</li></ul>	Water Management Plan	Section 5 of the WMP addresses all requirements	C	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>BIODIVERSITY</b>					
<b>Biodiversity Offset</b>					
3.23	By the end of June 2012, unless the Secretary agrees otherwise, the Proponent shall enter into a BioBanking agreement with the Minister for Environment and Heritage, in accordance with Part 7A of the <i>Threatened Species Conservation Act 1995</i> , to implement the Biodiversity Offset Strategy described in the EA (for the Whitehaven Regional Biobank Site), and summarised in Table 7.	Review agreement  Refer Independent Environmental Compliance Audit - Umwelt (2013).	As specifically requested by DP&E the auditor reviewed a. Status of offset security arrangements and any changes during the audit period, and b. Assessed implementation of offset management plan:  The approved WHC Biobank Biodiversity Offset Management Plan (BOMP, 2013) outlines the Biodiversity Offset Strategy requiring 1,524ha of native woodland to be maintained and improved on the Yarrari and Belah properties with subsequent biobanking credits retired relating to the Rocglen Coal Mine, Canyon Coal Mine and Tarrawonga Coal Mines.  The WHC Biobank BOA is secured under a NSW Biobanking Agreement with the BOMP indicating that OEHS intention is to transfer the property to the National Parks Estate as an addition to the Boonalla Aboriginal Area (formerly Kelvin State Forest) after Year 10 (~2023). Should such a land dedication be made and accepted by the NSW Minister for the Environment, the balance of funds held in the Biobanking Trust Fund would be transferred to the Minister in accordance with Section 36 of the Threatened Species Conservation (Biodiversity Banking) Regulation 2008 (or the equivalent transitional provisions superseded by the Biodiversity Conservation Act 2016 for Biodiversity Stewardship Agreements) to provide for the ongoing management of the reserve.	C  Closed Previous Audit	
<b>HERITAGE</b>					
<b>Heritage Management Plan</b>					
3.24	The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with OEHS and Aboriginal stakeholders; (b) be submitted to the Secretary for approval by the end of December 2011; (c) describe the measures that would be implemented: • record and salvage the Aboriginal sites within the project disturbance area, including RPS Rocglen IF1, RPS Rocglen AS1 and RPS Rocglen AS2 at locations as shown in Appendix 6 and any potential archaeological deposits; • store the Aboriginal objects salvaged, both during construction and in the long term; • protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6); • manage the discovery of any human remains or previously unidentified Aboriginal objects; • enable Aboriginal stakeholders to get reasonable access to the site during the project; • ensure Aboriginal stakeholders are consulted about the conservation and management of Aboriginal cultural heritage on site; and • ensure workers on site receive suitable heritage inductions, and that suitable records are kept of these inductions.	Environmental Management Plans, Correspondence with DPE 12 July 2018.	During the audit period WHC updated the HMP. Correspondence from DP&E dated 12 July 2018 states that the management plans listed (including the HMP) have been reviewed and address requirements of Condition 24 Schedule 3.  The HMP was noted to be implemented in most cases observed, however with regard to the requirement to <i>protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6)</i> , the auditor noted the fencing to be temporary in nature and in some places wind damaged.	O (Non-Compliant)	The auditor recommends WHC upgrade fencing to enhance protection, monitoring and management of scarred trees (NPWS # 20-4-0194 and # 20-4-0195).
<b>TRANSPORT</b>					
<b>Road Works</b>					
3.25	By the end of December 2012, unless the Secretary agrees otherwise, the proponent shall upgrade and tar seal Wean Road to the satisfaction of Council from the northern end of the existing tar seal to the point of the Gunnedah/Narrabri Shire Council boundary, in general accordance with Council's Rural Local Roads Standard.		Completed, as noted during last audit.	C	
<b>Road Maintenance</b>					
3.26	During the project, the Proponent shall contribute towards the maintenance of the public roads used by the project, in accordance with the existing road maintenance agreement between the Proponent and Council, as may be modified from time to time through the agreement of both parties. If there is a dispute in relation to this agreement, then either party may refer the matter to the Secretary for resolution.	Environmental Officer interview  Road Maintenance Agreement issued August 2009	Wean Road has been fully paved by Whitehaven during the last audit period  No issue with arrangement raised during audit reporting period.	C	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Traffic Management Plan</b>					
3.27	<p>The Proponent shall prepare and implement a traffic management plan for the Project, to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with RMS, Gunnedah Shire Council, and the owners of the Tarrawonga and Vickery coal mines;</p> <p>(b) be submitted to the Secretary for approval, by 31 March 2017;</p> <p>(c) include a program for implementing Whitehaven's commitments in the EA</p> <p>(d) Include transport protocols that describe control measures for coal haulage:</p> <p>during school bus hours;</p> <p>on the Kamilaroi Highway; and</p> <p>during seasonal and event-based peak traffic periods</p> <p>(e) include a driver's Code of Conduct to include but not limited to:</p> <p>behavioural safety practises and initiatives used by drivers to implement the transport protocols;</p> <p>induction process for vehicle operators and regular toolbox meetings; and complaint resolution and disciplinary procedures</p> <p>(f) describe measures to minimise dust from roads that may be used for access to the mine site</p> <p>(g) arrangements to comply with cumulative coal haulage limits from the project and the Tarrawonga and Vickery coal mines; and</p> <p>(h) monitoring program to audit vehicle movements, including the origin and destination of employees, against predictions in the EA</p>	<p>Approval of Rocglen Traffic MP July 2018.pdf</p> <p>Traffic Management Plan</p>	<p>DPE approved the TMP (Revision 2, dated March 2017) on the 12 July 2018. The plan was prepared in consultation with Council and NSW Roads and Maritime Services. Table 1 of the Plan provides a summary of consultation and where addressed throughout the plan. Plan could provide more information with regards to a code of conduct and be updated to reference the requirements under the condition that applied with the implementation of Modification 3 (2017) - presently only modification 2 is limit of discussion.</p>	O (Compliant)	<p>The TMP needs to include a code of conduct for drivers and address specific requirements of 2017 Modification to DA10_0015</p>
<b>Operating Conditions</b>					
3.28	<p>The Proponent shall ensure all coarse and fine rejects are transported from the Whitehaven CHPP to the site by road, using only the designated transport route shown in Figure 3 of Appendix 2.</p>	<p>Environmental officer interview</p>	<p>Environmental officer identified that the designated transport is the only direct route to the CHPP</p>	C	
3.28a	<p>The Proponent shall maximise the backfilling of haul trucks with coarse and/or fine rejects from the Whitehaven CHPP to minimise the number of heavy vehicles on the designated transport route.</p>	<p>Environmental officer interview</p>	<p>Process driven by efficiency. Rejects are solely brought to site by back haul.</p>	C	
3.29	<p>The Proponent shall only dispatch coal from the site by road or receive coarse and/or fine rejects on the site between the hours of:</p> <p>(a) 7 am to 9.15 pm, Monday to Friday;</p> <p>(b) 7 am to 5.15 pm Saturday; and</p> <p>(c) at no time on Sundays and public holidays.</p>	<p>Environmental officer interview</p> <p>Weighbridge docket for 20 December 2018, 14 &amp; 18 February 2019</p> <p>Logistic Manager Excel spreadsheet</p>	<p>The coal bins automatically record the truck number, time of dispatch which gives an approximation of operating hours for the trucks. A review of weighbridge dockets indicate the ROM Operator loads trucks before seven (20 December 2018, 6.23am) but anecdotally trucks do not leave site before seven.</p>	NV	
3.29a	<p>The Proponent shall ensure that:</p> <p>(a) trucks travelling to and from the site do not exceed 40 kilometres per hour in the vicinity of the school bus when it is operating near school bus stops along the approved haulage route, unless an alternative protocol is agreed by the Secretary; and</p> <p>(b) spillage from haulage vehicles is minimised and promptly managed.</p>	<p>Traffic Management Plan</p> <p>Code of Conduct</p> <p>Toolbox talk discussing dispatch times (Environment Brief - Coal Transport)</p>	<p>Drivers extend tarpaulins over loads prior to leaving site</p> <p>Environmental Officer provided toolbox talk outlining truck covering requirements and safety around other road users.</p> <p>TMP outlines requirements.</p>	C	
<b>Monitoring of Coal Transport</b>					
3.3	<p>The Proponent shall:</p> <p>(a) keep accurate records of the amount of coal transported (on a monthly basis) from the site, as well as the number of coal truck movements generated by the project; and</p> <p>(b) make these records publicly available on its website at the end of each calendar year.</p>	<p>Quarterly production reports are available. Website is <a href="http://www.whitehavencoal.com.au/quarterly-production-reports/">http://www.whitehavencoal.com.au/quarterly-production-reports/</a></p>		C	
<b>VISUAL</b>					
<b>Visual Amenity and Lighting</b>					
3.31	<p>The Proponent shall:</p> <p>(a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the project;</p> <p>(b) establish and maintain an effective vegetative screen along the boundary of the site that adjoins public roads;</p> <p>(c) ensure that no outdoor lights shine above the horizontal; and</p> <p>(d) ensure that all external lighting associated with the project complies with <i>Australian Standard AS4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting</i>, or its latest version.</p>	<p>Site Inspection</p>	<p>Wean Road runs along eastern boundary - site is visible from the road with minimal vegetation planted along this route particularly in the central section (current pit location). The auditor notes that WHC have made efforts to improve the vegetative screen along the Wean Road during the audit period, most recently July 2018, however it is noted that the trees planted have failed.</p>	O (Non-compliant)	<p>Consider installing bund along Wean Rd to provide a visual screen. Vegetation will be established during pending closure planning.</p>

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>WASTE</b>					
3.32	The Proponent shall:  (a) minimise the waste generated by the project; and  (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of in a lawful manner.	Review of Waste Management Spreadsheet January 2019  Site Inspection Invoice INV-6437 Invoice INV-6419 Invoice INV-6400	Waste streams were noted to be segregated in the workshop area. Waste is removed from the site by licenced waste contractor Namoi Waste Corp as demonstrated by invoices provided.	C	
<b>BUSHFIRE MANAGEMENT</b>					
3.33	The Proponent shall:  (a) ensure that the project is suitably equipped to respond to any fires on site; and  (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.	Site Inspection  Interview Graduate Environment Officer	ERM auditor observed all mobile equipment is provided with fire fighting equipment, the site has an onsite fire truck and water trucks are available to provide additional support. Site representative attended a Mines - Fire Safety Meeting 5 July 2018. WHC has engaged LRM Fire and Rescue for the 2018/2019 fire season to provide Bushfire Response Service on or adjacent to WHC land during FY19.	C	
<b>REHABILITATION</b>					
<b>Rehabilitation Objectives</b>					
3.34	The Proponent shall rehabilitate the site to the satisfaction of DRG. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA (and depicted conceptually in Figure 1 in Appendix 5), and comply with the objectives in Table 8.	Annual Rehabilitation Reports 2017 and 2018  Annual Reviews  Site Inspection	Ecological conduct annual Rehabilitation Reports. At the start of the MOP (2015) 119.7ha had been rehabilitated. Reporting period is November through October from 2015 to 2020. The period Nov 2016 - October 2017 there was a requirement to rehabilitate 19.8 ha with no requirement to rehabilitate any further locations until after 2020.  During reporting periods where there is no MOP requirement to conduct a specified area of rehabilitation, there is a requirement for replanting to address prior rehabilitation failure. Note the auditor observed large areas of rehabilitation failure across the site.	O (Non-compliant)	Prepare a replanting plan to address rehabilitation failure.
<b>Progressive Rehabilitation</b>					
3.35	The Proponent shall carry out the rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance.		Refer Schedule 3 Condition 34	O (Non-compliant)	
<b>Rehabilitation Management Plan</b>					
3.36	The Proponent shall prepare and implement a Rehabilitation Management Plan to the satisfaction of DRG. This plan must:  (a) be prepared in consultation with the Department, DoI Lands and Water, OEH, Council and the CCC;  (b) be submitted to DRG by the end of February 2012;  (c) be prepared in accordance with any relevant DRG guideline;  (d) describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;  (e) address all aspects of rehabilitation including mine closure, final landform, and final land use; and  (f) build to the maximum extent practicable on the other management plans required under this approval.	MOP	MOP for Rocglen Coal Mine prepared for the period November 2015 to October 2020. ERM understands a Closure MOP is currently being prepared and is to be submitted by the end of February 2019.	C	
<b>SCHEDULE 4 ADDITIONAL PROCEDURES</b>					
<b>NOTIFICATION OF LANDOWNERS</b>					
4.1	By the end of December 2011, the Proponent shall notify in writing the owners of "Brolga", "Surrey" and any privately-owned land within 2 kilometres of the proposed footprint of the open-cut pit that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on their land, or to have a previous property inspection report updated.	Independent Environmental Compliance Audit - Umwelt (2013)  Reports completed at the Surrey and Brolga residences in 2008 - refer previous audit report.	Requirement during previous auditing report period.	C	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
4.2	<p>As soon as practicable after obtaining monitoring results showing:</p> <p>(a) an exceedance of the relevant criteria in Schedule 3, the Proponent shall notify the affected landowner and/or tenants in writing of the exceedance, and provide regular monitoring results to each of these parties until the project is complying with the relevant criteria again; and</p> <p>(b) an exceedance of the relevant air quality criteria in Schedule 3, the Proponent shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land (including tenants of any mine-owned land).</p>	<p>Signed Letter.pdf</p> <p>Signed Letter_delivered 2017_05_1</p>	<p>Exceedances of air quality criteria were identified to not be a consequence of mining activity and hence consultation with landholders was not undertaken.</p>	C	
<b>INDEPENDENT REVIEW</b>					
4.3	<p>If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then they may ask the Secretary in writing for an independent review of the impacts of the project on their land.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Proponent shall:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p> <ul style="list-style-type: none"> <li>• consult with the landowner to determine his/her concerns;</li> <li>• conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and</li> <li>• if the project is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and</li> </ul> <p>(b) give the Secretary and landowner a copy of the independent review.</p>	<p>Environmental Officer interview</p>	<p>Environment Officer interview identified that no independent review was requested during the audit period.</p>	NT	
4.4	<p>If the independent review determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, then the Proponent shall:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the project complies with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Secretary.</p>	<p>Environmental Officer interview</p>	<p>Environment Officer interview identified that no independent review was requested during the audit period.</p>	NT	



No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>SCHEDULE 5 - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>					
<b>ENVIRONMENTAL MANAGEMENT</b>					
<b>Environmental Management Strategy</b>					
5.1	<p>The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <p>a) be submitted to the Secretary for approval by the end of December 2011;</p> <p>b) provide the strategic framework for environmental management of the project;</p> <p>c) identify the statutory approvals that apply to the project;</p> <p>d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;</p> <p>e) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the project;</li> <li>• respond to any non-compliance;</li> <li>• respond to emergencies; and</li> </ul> <p>f) include:</p> <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this approval; and</li> <li>• a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.</li> </ul>	<p>Environmental Management Plans, Correspondence with DPE 12 July 2018:</p>	<p>During the audit period WHC updated the EMS. Correspondence from DP&amp;E dated 12 July 2018 states that the management plans listed have been reviewed and address requirements of Condition 1 of Schedule 5.</p>	C	
<b>Management Plan Requirements</b>					
5.2	<p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria;</li> <li>• the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul> <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> <li>• impacts and environmental performance of the project;</li> <li>• effectiveness of any management measures (see (c) above);</li> </ul> <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints;</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> <p>(h) a protocol for periodic review of the plan.</p>	<p>Approval TMP, Correspondence with DPE 12 July 2018 Approval</p> <p>Environmental Management Plans, Correspondence with DPE 12 July 2018:</p>	<p>All plans required to date have been submitted for the project. During the audit period WHC has updated the BMP, AQGHG, WMP, HMP and EMS. Correspondence from DP&amp;E dated 12 July 2018 states that the management plans listed have been reviewed and address requirements of Condition 12, 17, 22 and 24 Schedule 3 and Condition 1 of Schedule 5.</p> <p>The Traffic Management Plan (revision 2, March 2017) has been reviewed by DP&amp;E in consultation with Council and NSW RMS and correspondence to WHC 12 July 2018 confirms DP&amp;E is satisfied the TMP addresses Condition 27 of Schedule 3.</p>	C	

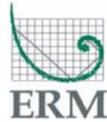
No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Annual Review</b>					
5.3	<p>By the end of each December, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the</p> <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the EA;</li> </ul> <p>(c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</p>	Review 2016 and 2017 Annual Reviews	<p>a) Section 8 discusses rehabilitation outcomes/ status and actions for next reporting period.</p> <p>b) review of monitoring results is provided in the report within Section 6, with graphs inserted in this section for air and within an annexure for Surface and Groundwater.</p> <p>c) a statement of compliance and outline of non-compliances are identified in Table 1 and Table 2 respectively.</p> <p>d) long term trends are provided within Section 6 where relevant</p> <p>(e) discrepancies are discussed where relevant in Sections 6 -8. Discrepancies can also be identified in graphs provided throughout the report and within the annexures.</p> <p>(f) Section 12 outlines activities to be completed in the next reporting period.</p>	C	
<b>Revision of Strategies, Plans and Programs</b>					
5.4	<p>Within 3 months of:</p> <p>(a) the submission of an annual review under condition 3 above;</p> <p>(b) the submission of an incident report under condition 6 below;</p> <p>(c) the submission of an audit report under condition 8 below; and</p> <p>(d) any modification to the conditions of this approval (unless the conditions require otherwise), the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.</p>	Management Plan Review Spreadsheet	The auditor sighted the Management Plan Review Spreadsheet which tracks management plans, review triggers, review date and provides for commentary on each action	C	
<b>Community Consultative Committee</b>					
5.5	The Proponent shall operate a Community Consultative Committee (CCC) for the project in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and to the satisfaction of the Secretary.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	The most recent CCC meeting was held 12 September 2018 with the next meeting scheduled 13 March 2019. Members of the CCC are notified a month in advance , correspondence sighted during the audit.	C	
<b>REPORTING</b>					
<b>Incident Reporting</b>					
5.6	As soon as is practicable after the Proponent becomes aware of any incident associated with the project, the Proponent shall notify the Secretary and any other relevant agencies of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.	Correspondence with EPA and DP&E	<p>The auditor reviewed the following notifications:</p> <p>Rocglen Noise Exceedance 14 - 16 August 2017, once the exceedance was confirmed on 12 September 2017 EPA and DP&amp;E notified on the same day.</p> <p>Rocglen Noise Exceedance 22 and 25 May 2017, once the exceedance was confirmed on 15 June 2017 EPA and DP&amp;E notified on 16 June 2017.</p> <p>Rocglen Noise Exceedance 24 March 2017, once the exceedance was confirmed on 24 April 2017 EPA and DP&amp;E notified on the same day.</p> <p>Rocglen Noise Exceedance 6 September 2016, once the exceedance was confirmed on 30 September 2017 EPA and DP&amp;E notified on the same day.</p> <p>Rocglen Water Discharge - notified EPA and DPE 24 November 2017 and later notified both parties that the uncontrolled discharge event was not classified as an incident given there had been over 38.4mm rain.</p>	C	



No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Regular Reporting</b>					
5.7	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	The website for Rocglen contains monthly summaries listing all monitoring results for the period as well as the Annual Report required by the MCoA and ML	C	
<b>INDEPENDENT ENVIRONMENTAL AUDIT</b>					
5.8	By the end of March 2013, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals); (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.	Independent Environmental Compliance Audit - Umwelt (2013)  Independent Environmental Compliance Audit - ERM (2016)  This Audit  DP&E letter issued 21 December 2018	WHC has commissioned and IEA in 2013, 2016 and 2019 and is completed in line with requirements.	C	
5.9	Within six weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.	DP&E letter issued 21 December 2018	Completion of the audit is interpreted as six weeks after the final report has been issued to WHC. Previous audit completed site inspection 6 May 2013 – issue of report was May 2014.  The Final report was issued to WHC 29 July 2016.	C	
<b>ACCESS TO INFORMATION</b>					
5.1	The Proponent shall: (a) make copies of the following publicly available on its website: • the documents referred to in Condition 2 of Schedule 2; • all current statutory approvals for the project; • all approved strategies, plans and programs required under the conditions of this approval; • a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the conditions of this approval, or any approved plans and programs; • a complaints register, updated on a monthly basis; • minutes of CCC meetings; • the annual reviews of the project; • any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit; • any other matter required by the Secretary; and (b) keep this information up-to-date, to the satisfaction of the Secretary.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Review of Rocglen website confirms all required documents available.	C	

No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>PA 06-198 (Additional Conditions)</b>					
3.17	Prior to blasting within 500 metres of any public road, the Proponent shall prepare and implement a Road Closure Management Plan for the project to the satisfaction of GSC and DPI.	Previous audit report - Umwelt (2011) Letter to GSC dated 11 October 2013	Closed in Audit 2011 Updated Road Closure Management Plan submitted to GSC 11 October 2013.	NT (Closed Previous Audits)	
3.18	During mining operations on site, the Proponent shall:  (b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the project;  (c) advertise the blasting hotline number in a local newspaper each year; and	Interview Graduate Environment Officer	Blasting number is on the Whitehaven website. All local residents have been contacted with the complaint number. Residents listed on the blast notification list are contacted accordingly prior to scheduled blasts.  The blasting hotline number/complaints number is not currently advertised in local newspapers each year. Previous audit report noted this action was completed at that time.	C	
3.3	The Proponent shall prepare and implement a detailed Landscape Management Plan for the site to the satisfaction of the Director-General and DPI. This plan must: (a) be prepared in consultation with OWE, DECC and GSC by suitably qualified expertise whose appointments have been approved by the Director-General; (b) be submitted to the Director-General for approval by the end of March 2009; and (c) include a: • Rehabilitation and Offset Management Plan; • Final Void Management Plan; and • Mine Closure Plan. Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Final Void Management Plan and Mine Closure Plan. However, if this occurs, the Applicant will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Final Void Management Plan and Mine Closure Plan.	Interview - Group Environment Superintendent (Compliance)  Previous Audit Report Umwelt (2011 and 2013)	The Landscape Management Plan had not been developed as at audit completed in 2011.  2013 audit considered the development of the Regional Biodiversity Strategy and BioBanking Agreement as well as the Rehabilitation Management Plan to close this finding from the 2011 audit.	NT  Closed previous Audits	
3.37	The Proponent shall keep records of the amount of coal transported from the mine site, and number of coal truck movements each year, and include these records in the AEMR.	Annual Reviews 2016 and 2017	AEMRs provide an annual summary of total output and movement of coal to the CHPPs as well as number of truck movements.	C	

## **Statement of Commitments**



No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Compliance with the EA</b>					
a	Whitehaven will carry out the development for the Project generally in accordance with the Project Application and this EA report.	Refer to MCoA and management plans assessment.	This audit – refer relevant Annexures for assessments.	Noted	
<b>General Operation</b>					
<b>Production Limit</b>					
a	Whitehaven will not extract more than 1.5 Mtpa of ROM coal from the Project Site	Coal Movement Records	Volume of extraction of coal confirmed through survey of the site – reports issued to Mine Manager. 2016: 1,259,744 Tonnes 2017: 1,387,519 Tonnes 2018: 1,206,300 Tonnes 2019 (January): 93,834 Tonnes	C	
<b>Hours of Operation</b>					
b	Mining operations may be undertaken 24 hours a day, Monday to Saturday, with the exception of public holidays.	Interview Graduate Environment Officer	Rocglen operate over two shifts, 7am – 5pm and 5pm -2.30am five days a week.	C	
c	Coal transport will be undertaken between 7am and 9:15pm Monday to Friday, and between 7am and 5:15pm on Saturdays.	Logistic Manager Excel spreadsheet Weighbridge dockets for 20 December 2018, 14 & 18 February 2019	The coal bins automatically record the truck number, time of dispatch which gives an approximation of operating hours for the trucks. A review of weighbridge dockets indicate the ROM Operator loads trucks before seven (20 December 2018, 6.23am) but anecdotally trucks do not leave site before seven.	NV (Duplicate CoA 3.29)	
<b>Refinement of Mine Plan</b>					
d	Any refinements to the concept mine plan outlined in this EA report will be detailed and assessed as part of the MOP process managed by the D&I NSW.	Mining Operations Plan	The mine plan is included in the MOP – most recent update completed November 2015	C	
<b>Consultation</b>					
e	Routine consultation will be undertaken with residents surrounding the Project Site and along the coal transport route, as well as with the CCC, to ensure any concerns relating to mine operations are identified and appropriately addressed.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	The most recent CCC meeting was held 12 September 2018 with the next meeting scheduled 13 March 2019. Members of the CCC are notified a month in advance, correspondence sighted during the audit.	C	
<b>ENVIRONMENTAL MONITORING AND REPORTING</b>					
<b>Revision of Environmental Management Plans and Monitoring Programs</b>					
a	Within 12 months of approval, Whitehaven will review, update and integrate relevant aspects of the environmental management of the Project in the existing set of environmental management plans for the Rocglen Coal Mine. This will be undertaken in consultation with the relevant government agencies.	PA_10_0015_MOD 4 was approved October 2018 Approval TMP, Correspondence with DPE 12 July 2018 Approval Environmental Management Plans, Correspondence with DPE 12 July 2018:	All plans required to date have been submitted for the project. During the audit period WHC has updated the BMP, AQGHG, WMP, HMP and EMS. Correspondence from DP&E dated 12 July 2018 states that the management plans listed have been reviewed and address requirements of Condition 12, 17, 22 and 24 Schedule 3 and Condition 1 of Schedule 5. The Traffic Management Plan (revision 2, March 2017) has been reviewed by DP&E in consultation with Council and NSW RMS and correspondence to WHC 12 July 2018 confirms DP&E is satisfied the TMP addresses Condition 27 of Schedule 3.	C	
b	Within 12 months of approval, Whitehaven will review, update and integrate relevant aspects of the environmental monitoring of the Project in the existing set of environmental monitoring programs for the Rocglen Coal Mine. This will be undertaken in consultation with the relevant government agencies.	as above	as above	C	
<b>Annual Environmental Management Plan</b>					
c	Whitehaven will prepare an AEMR for the Project for submission to the Secretary and relevant government agencies.		AEMRs have been prepared and submitted.	C	
<b>Soil Stripping, Stockpiling and Re-Spreading</b>					
a	Soil materials within the Project Site will be stripped, handled and stockpiled in a manner that minimises the potential for soil loss and structural deterioration.	Site Inspection Interview with Graduate Environmental Officer	Stockpiles looked to be in accordance with standard practiced during site inspection however soil types were not clearly understood / Sign posted. Stockpiles were being tested to understand soil type and characteristics to allow for amelioration to improve rehabilitation success.	O (Compliant)	Consider including signage of stockpiles to allow for ease of recognition and reduce potential for contamination / incorrect placement.
b	Topsoil stockpiles will be established to a maximum height of 3 metres.	Site Inspection Interview Graduate Environment Officer	Topsoil stockpiles were noted during the site inspection to be within 3m height. Mine Manager confirmed that topsoil stockpiles are kept to less than 3m in height.	C	
c	Soil material will be maintained in a slightly moist condition during stripping, and will not be stripped in either an excessively dry or wet condition.	Environmental Officer Interview. Site production and information board (used for daily meetings) LDP 2.PDF (Land disturbance protocol)	Dust monitoring identified that the exceedances were not related to mining activities. Drought conditions are restrictive to having optimum soil moisture content. Site production and information board (used for daily meetings) details forecast wind conditions and is discussed in morning meetings. LDP 2 noted that stripping during adverse weather conditions was to be avoided	C	
d	If mining sequencing, equipment scheduling and weather conditions permit, stripped material will be placed directly onto reshaped emplacement areas and spread immediately to avoid the requirement for stockpiling.	Interview – Mine Manager	Economic and operational drivers ensure this is completed where possible.	C	
e	The surface of soil stockpiles will be left coarsely textured in order to promote infiltration and minimise erosion until vegetation is established, as well as to prevent anaerobic zones forming.	Site Inspection	Site inspection confirms surface is rough and vegetation has established on stockpiles.	C	

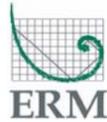
No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
f	Where long-term stockpiling is planned (that is, greater than 3 months) the stockpiles will be seeded and fertilised as soon as possible. An annual cover crop that produces sterile florets or seeds will be sown.	Environmental officer interview. Site Inspection 190207_topsoil plan and volumes.pdf	Evidence of seeding dates upon stockpiles could not be provided though vegetation was noted on topsoil stockpiles on-site. Drought conditions have impacted growth.  Survey plan of stockpiles and whether they are topsoil or subsoil and the quality was noted. Soil sampling has been undertaken to determine amelioration requirements and identify soil type in unknown stockpiles.  No more topsoil to be stripped.	C	
g	Prior to re-spreading stockpiled material onto completed mining or overburden emplacement areas, an assessment of weed infestation on stockpiles will be undertaken to determine if individual stockpiles require herbicide application and/or 'scalping' of weed species prior to spreading.	Interview with Graduate Environmental Officer	Environmental field officer completes this on a campaign basis.  Scalping is unlikely to occur due to shortages of topsoil.  Register of herbicide usage not available for review. The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.  No record of treatment for stockpiles prior to reuse.	O (ANC)	Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re spreading/reuse on site.
h	A soil inventory will be maintained to ensure adequate material is available for planned rehabilitation activities.	Interview with Graduate Environmental Officer Site Inspection Previous audit report	Maps are available which lists the locations of the topsoil and sub soil stockpiles. A soil inventory is maintained and kept up to date by the surveyor.  A topsoil deficit exists (identified during previous audit), soil testing for amelioration with compost / Mulch (observed on-site during inspection) is to be undertaken to bridge deficit.	C	
i	Where natural protection from surface runoff flows is not available or achievable, protective earthworks, such as contour banks, and/or straw bale protection will be installed. Silt fencing (or similar) will be installed immediately downslope of any stockpile area potentially susceptible to erosion and maintained until the stockpile is considered stable with an effective vegetation cover.	Site Inspection	The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile.	NC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site.
j	Whitehaven will adopt the general practice, where appropriate subsoil is available and targeting areas being rehabilitated to pasture, of including an intermediate layer of subsoil between the overburden material and the topdressing to improve the water holding capacity of the rehabilitated landform and reinstate a more natural soil profile. For areas being rehabilitated to bushland, Whitehaven may preferentially reduce the subsoil replacement depth and/or exclude subsoil replacement in selected areas to establish trial areas to monitor bushland development in different soil profiles.	Interview – Mine Manager	Subsoil is stockpiled separately and used where possible between topsoil and overburden to increase stability particularly in the case of subsoil high in clay content.	C	
k	Where resources allow, topsoil and subsoil will each be spread to a nominal depth of between 100 to 150 mm, giving a combined depth of soil material on the rehabilitated landform of between 200 and 300 mm.	Interview with Graduate Environmental Officer	Anecdotally occurs - was not verified during site inspection	NV	Provide as-built drawings or other suitable form of evidence to ensure that this commitment is met
l	The subsoil layer will be spread on an even but roughened surface that has been ripped along the line of the contour to break any compacted and/or smooth surfaces. Ripping will also assist the keying of subsoil into the overburden, which will, in turn, assist in the prevention of land slip and can help vegetation penetrate deep into the soil profile, encourage ingress of water and minimise erosion.	Interview with Graduate Environmental Officer	Anecdotally occurs - was not verified during site inspection	NV	Prepare photographs to demonstrate surface roughening ripping prior to placement of materials to demonstrate compliance with this commitment
m	Stripped soil material will be spread, treated with fertiliser and seeded in one consecutive operation in order to reduce the potential for soil loss to wind and water erosion.	Interview with Graduate Environmental Officer	Anecdotally occurs - was not verified during site inspection	NV	Provide suitable form of evidence (such as photographs) that this consecutive operation occurs.
<b>Geotechnical Stability – Open Cut Pit and Highwall</b>					
a	Progressive stability reviews and monitoring of geological conditions will be undertaken once the pit moves within 250 metres of the realigned Wean Road to ensure geotechnical stability and safe conditions. If any unfavourable conditions are observed or detected, a detailed assessment will be undertaken by a suitably qualified geotechnical engineer before mining is allowed to continue towards Wean Road.	Geotechnical Inspection Reports – Lambert Geotech (April 2018)	Regular inspections and reports are completed by Lambert Geotech. Last report issued 12 April 2018 to assess a slip on eastern highwall face in Strip 19.	C	
b	When the Belmont Fault (or fault zone) is more than 150 metres from Wean Road, operations will mine through the Belmont Fault. The uppermost alluvial material and weathered rock on the eastern side of the fault will have individual face angles no steeper than 45 degrees.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	
c	Benching will be adopted at a maximum interval of 25 metres in alluvial, weathered rock and brecciated rock.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	
d	In fresh strata face angles will be designed at 75 degrees to pit bottom. If in following the upturned Belmont Seam down to pit bottom the floor rock is strong and competent, then the face will be developed on the dip slope without the need for benches in rock beneath the Belmont Seam.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
e	When the top of the stable highwall reaches 50 metres from Wean Road (i.e. when the eastern limit of the Belmont Fault zone reaches 150 metres from Wean Road), the eastern end wall will be turned at right angles to the west. Once the turned highwall encounters sound rock, as it continues to the west, it can be turned again to develop parallel to the Belmont Fault until it reaches the planned pit limit.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	
f	The turned highwall in the fault zone will be notched to achieve a stable face. This notch will not approach Wean Road any closer than 150 metres without geotechnical advice.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	
g	A block of unmined ground will be left to contain the Belmont Fault zone and prevent it causing collapse back towards Wean Road. The size of this block of unmined ground will be determined by geotechnical investigation by the time a change in highwall direction is required.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	
h	If the highwall is free of faulting, mining will resume southeast towards the currently planned pit limit. Such mining will cease when the pit crest reaches 50 metres from Wean Road. If additional faulting is detected in this advancing face then the relevance of such structure on highwall stability will be investigated before continuation of highwall development.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NV	
<b>Rehabilitation and Mine Closure</b>					
<b>Progressive Rehabilitation</b>					
a	Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, top dressed and vegetated to provide a stable landform. Early reshaping and revegetation of the external batter slopes of the emplacement areas is particularly important and will be targeted as a priority.	Rocglen Mine Rehabilitation Monitoring 2016, 2017, 2018, Eco Logical Australia Rehabilitation Management Plan Site inspection	Progressive rehabilitation can be observed by review of works over the years and areas of rehabilitation as reported in annual rehabilitation monitoring reports - with Section 3 outlining the rehabilitation undertaken to date.	C	
b	Disturbed areas will generally undergo rehabilitation within one year of overburden emplacement and reshaping.	Rehabilitation Management Plan Site inspection	Exact timeframes to determine if this commitment was met was not undertaken.	NV	
<b>Overburden Placement and Shaping</b>					
c	Placement and shaping of overburden will be undertaken to achieve stable slopes.	Rehabilitation Management Plan Site inspection	Site inspection confirms overburden is reasonably stable with minor rilling noticed in some areas. The western emplacement area eastern edge will require further shaping but can only be completed once operations cease as the coal handling and offices are located in the area required to achieve a stable batter angle.	C	
d	Placement and shaping of overburden will be undertaken in a manner which, wherever practicable, ensures that any friable or weathered materials are placed below the subsoil and topsoil layers in order to provide a cover of more competent material and avoid the exposure of large rocks on the final surface.	Rehabilitation Management Plan Site inspection Interview Graduate Environment officer	Clay material is used where practicable as upper layer above more weathered material to increase stability – observed during site inspection.	C	
e	Any coarse coal rejects placed in the mine void will be covered with at least 3 metres of overburden material.	Site Inspection Interview Graduate Environment officer	Coal rejects area is in area that will be covered in at least 3m of overburden material.	C	
<b>Subsoil and Topsoil Replacement</b>					
f	Refer to commitments listed above in Section 8.4.	Noted	Noted	Noted	
<b>Drainage and Surface Water Structure Installation</b>					
g	Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and 3 square metres (m <sup>2</sup> ), respectively. Rock-lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site.	Rehabilitation Management Plan Site inspection	Site inspection identified that banks were present on the eastern rehabilitated areas and conveyed runoff to a series of basins.  The northern emplacement area has a series of banks that convey runoff to rock lined drains and finally on to sediment basins. The final sediment basin discharge point may be directly adjacent to its inlet and in time of flow, basin may not be providing optimum retention / opportunity for settlement. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.  On the western side of the graded sub-soil stockpile adjacent to Wean road, a breach in a perimeter bund downslope of the haul road was identified.	O (Non Compliant)	Repair the breach in the perimeter bund. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Revegetation</b>					
h	The top dressed surfaces of those areas designated to be restored to rehabilitated pasture will be sown with a mixture of pasture species appropriate for the season. The seed mixture will include fast growing, short-lived species and perennial grasses and legumes.	Rehabilitation Management Plan  Site inspection  Interview – Graduate Environment Officer	Site inspection indicates mixed success with rehabilitation. The northern emplacement area designated for pasture has numerous weeds and due to drought conditions the has been rehabilitation failure across the site.  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns. There is ongoing investigation for alternative methods for reseeding/replanting.	C	
i	The top dressed surfaces of those areas designated to be restored as rehabilitated bushland will be initially stabilised with a non-persistent cover crop followed by planting of a selection of locally occurring tree and shrub species that will encourage the re-establishment of the pre-mining vegetation communities and, in the medium to longer term, create habitat and corridors for native fauna.	Rehabilitation Management Plan  Site Inspection	Some areas of the western emplacement area designated as bushland has had a small degree of success however not all areas have been successful in establishing cover. The northern emplacement area has had less success. Note the western emplacement area requires reshaping due to the slope being too steep and not meeting design requirements.	C	
j	All areas identified for bushland and pasture re-establishment will be fenced and have stock excluded until it can be demonstrated that the vegetation is stable and self-sustaining, and that grazing will not impact upon its establishment.	Rehabilitation Management Plan  Site inspection	The site inspection notes that the boundary of the mining lease area is fenced and no stock was present. The rehabilitated areas fall within the mine site.	C	
<b>Rehabilitation Monitoring and Maintenance</b>					
k	Areas being rehabilitated will be regularly inspected and assessed against the long and short-term rehabilitation objectives. During regular inspections, aspects of rehabilitation to be monitored will include: · Evidence of any erosion or sedimentation from areas with establishing vegetation cover; · Success of tree and shrub plantings; · Adequacy of drainage controls; · Presence/absence of weeds; and · General stability of the rehabilitation site.	Monthly Environment Inspection checklists	Monthly environment checklists include section on land management/rehabilitation areas which includes all checks as listed.  January 2019 checklist identifies the Trees are not in adequate condition with dry weather effecting tube stock. Further notes need for infill planting and identifies erosion issues on western emplacement. With regard to subsoil stockpiles this is noted as requiring analysis. Monthly inspections include all items required of the condition.	O (Compliant)	Findings from the monthly inspections are not tracked and rely upon site environmental specialists to follow-up.
l	Where the rehabilitation success appears limited, maintenance activities will be initiated. These may include re-seeding and where necessary, re-topdressing and/or the application of specialised treatments such as composted mulch to areas with poor vegetation establishment. Tree guards will be placed around planted tube stock if grazing by native animals is found to be excessive.	Interview Graduate Environment Officer	Soil testing was conducted 23 January 2019 by Landloch to assess stockpiles to determine if topsoil or sub soil and quality of material.	O (Compliant)	Although compliance with this commitment is met it is worth noting that a topsoil and subsoil stockpile register is maintained and following Landloch testing a review and update of topsoil and subsoil balance is recommended.
m	If drainage controls are found to be inadequate for their intended purpose or compromised by grazing stock or wildlife, these will be repaired and/or temporary fences installed to exclude animals. Should areas of excessive erosion and sedimentation be identified, remedial works such as importation of additional fill, soil material and/or the redesigning of water management structures to address erosion will be undertaken.	Interview Graduate Environment Officer  Site inspection	Site is fenced to exclude stock from mine lease area.  Materials were present on site to ameliorate soils (gypsum and compost/mulch materials).  The northern emplacement area has a series of banks that convey runoff to rock lined drains and finally on to sediment basins. The final sediment basin discharge point may be directly adjacent to its inlet and in time of flow, basin may not be providing optimum retention / opportunity for settlement. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.  On the western side of the graded sub-soil stockpile adjacent to Wean road, a breach in a perimeter bund downslope of the haul road was identified.	O (Non-compliant)	Repair the breach in the perimeter bund. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.
n	Monitoring will be conducted periodically by independent, suitably skilled and qualified persons at locations that are representative of the range of conditions on the rehabilitating areas. Annual reviews will be conducted of monitoring data to assess trends and monitoring program effectiveness.	Rocglen Mine Rehabilitation Monitoring 2016, 2017, 2018, Eco Logical Australia	Monitoring undertaken and reported within the annual reports meets requirements of this commitment. The monitoring identifies areas of changes and positive and negative rehabilitation outcomes.	C	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Conceptual Post-Mining Land Use</b>					
o	The disturbed area within the Project Site will be restored to either rehabilitated bushland or rehabilitated pasture, with approximately 5 hectares (1 percent) remaining as a stabilised highwall of the final void.	Rehabilitation Management Plan Site Inspection Interview – Group Superintendent – Environment (Compliance)	Site is still operational – current Rehabilitation Plan aligns with this objective.	NT	
p	Along the eastern boundary of the Project Site, adjacent to the realigned Wean Road, a strip of rehabilitated bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road, as well as provide vegetation connectivity north-south on the eastern side of the void.	Site inspection	Site inspection indicates these works have not been completed. Site is still operational.	NT	
q	In addition to the large area to be rehabilitated to bushland, strategically placed tree lots will be established within rehabilitated pasture areas to break-up the landform and act as wildlife refuges and linkages.	Rehabilitation Management Plan Mining Operations Plan	Plans include establishment of bushland tree lots in the northern and western emplacement areas along the eastern batter.	C	
r	Tree trunks and branches less than 300 mm diameter and other smaller vegetative debris removed during clearing activities will be spread over those areas to be restored as rehabilitated bushland where practical.	Rehabilitation Management Plan Site Inspection	Site is still operational however it was noted that tree trunks and branches were scattered around newly rehabilitated areas in the northern emplacement area which will become bushland.	C	
<b>Final Void Management</b>					
s	The final void will be designed and managed as a stable landform. Appropriate long-term land use options for the void will be considered and adequately assessed in consultation with relevant stakeholders as the mine approaches closure.		The Site has been operational during the audit period and it is understood operations will cease in June 2019. The Final Void Management Plan will be included in the Closure MOP, understood to be in development.	C	
<b>Final Void Stability – Low Walls</b>					
t	The low walls will be battered back from the angle of repose to ensure the long term geotechnical stability of the face, with the determination of geotechnical stability and recommendations as to the final slope undertaken by a qualified geotechnical engineer on the basis of an assessment of the overburden material, the likely degree of settlement, and the degree of weathering expected in the long term. It is expected that the low wall sides of the final void will be battered back to a maximum of 18 degrees with a goal of 10 degrees being optimal.		The Site has been operational during the audit period and it is understood operations will cease in June 2019. The Final Void Management Plan will be included in the Closure MOP, understood to be in development.	NT	
u	Surface water drainage on and over the low wall will be minimised through the construction of drainage control structures, the construction of Dam F, and the aim of diverting as much of the catchment as possible away from the final void and back into the surface water system.		The Site has been operational during the audit period and it is understood operations will cease in June 2019. The Final Void Management Plan will be included in the Closure MOP, understood to be in development.	NT	
v	Erosion of the low wall will be controlled by limiting the length of slope through the use of contour and graded drains, minimising the slope, and by the establishment of suitable vegetation.		The Site has been operational during the audit period and it is understood operations will cease in June 2019. The Final Void Management Plan will be included in the Closure MOP, understood to be in development.	NT	
<b>Final Void Stability – Low Walls</b>					
w	To ensure the safety of the final void, the surrounding final slopes will be left in a condition where the risk of slope failure is minimised. The highwall of the final void will be left at 45 degrees to ensure long term geotechnical stability. This will be assessed by a suitably qualified geotechnical engineer.		The Site has been operational during the audit period and it is understood operations will cease in June 2019. The Final Void Management Plan will be included in the Closure MOP, understood to be in development.	NT	
x	Whitehaven will undertake progressive stability reviews and monitoring of the highwall once it moves to within 250 metres of the Wean Road deviation to ensure safe working conditions. If any failures are observed, or additional faulting is detected, then a detailed assessment will be undertaken by a suitably qualified geotechnical engineer before mining is allowed to continue towards Wean Road.	Geotechnical Inspection Reports – Lambert Geotech (April 2018)	Regular inspections and reports are completed by Lambert Geotech. Last report issued 12 April 2018 to assess a slip on eastern highwall face in Strip 19.	C	
y	Whitehaven will adopt the geotechnical stability commitments listed above in Section 8.5 as the open cut pit progresses and the final landform is being formed.	Interview Mine Surveyor	Condition reflected in mine planning and monitored by surveyors. Deviations from MOP escalated to Mine Operations manager.	NT	
<b>Biodiversity Offset Strategy</b>					
a	The revised Biodiversity Offset Strategy described in Section 5.8, which has been prepared on the basis of the BioBanking Methodology to 'inform' the 'improve or maintain' assessment, will be implemented. This Strategy, in summary, comprises the retirement of 4,859 credits (for the impact to 95.44ha as a consequence of the project) from the Whitehaven Regional BioBank Site, which is in the final stages of registration by the DECCW as a BioBank Site under Part 7A of the <i>Threatened Species Conservation Act</i> .	Biodiversity Banking and Offsets Scheme Annual Reports 2012-20163, 2017 and 2018 Letter from DP&I 14 February 2013	Letter from DP&I informing Whitehaven Coal that BioBanking Agreement ID number 43, for the Whitehaven Regional Offset Area, meets the Biodiversity Offset requirements for the Rocglen Extension Project (10_0015) under Condition 23 of Schedule 3.	C	
b	The Whitehaven Regional BioBank Site will be actively managed via a BioBanking Management Plan with in-perpetuity management funding, and will have the highest level of conservation status outside of National Parks via a BioBanking Agreement registered on the land title in-perpetuity.	Biodiversity Banking and Offsets Scheme Annual Reports 2012-20163, 2017 and 2018 Letter from DP&I 14 February 2013	Plan has been developed with implementation tracked through annual reviews. Letter received from DP&I confirming retirement of biobank credits and the establishment of a Biobank Trust Fund.	C	
<b>Air Quality</b>					
<b>Vegetation Clearing and Soil Stripping</b>					
c	Cleared trees and branches will be retained for use in stabilising slopes identified for restoration of rehabilitated woodland. No burning of vegetation is permitted or occurs on-site	Site Inspection LDP 2.PDF (Land disturbance protocol)	Site inspection identified that tree trunks were positioned throughout the rehabilitation areas. LDP2 noted that tree branches and trunks were to be retained for later use in rehabilitation	C	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
d	Where practicable, soil stripping will be undertaken when there is sufficient soil moisture to prevent lift-off dust and at times that avoid periods of high winds. Where this is not possible, dust suppression by water application will be undertaken to increase soil moisture.	Environmental Officer Interview. Site production and information board (used for daily meetings) LDP 2.PDF (Land disturbance protocol)	Dust monitoring identified that the exceedances were not related to mining activities. Drought conditions are restrictive to having optimum soil moisture content. Site production and information board (used for daily meetings) details forecast wind conditions and is discussed in morning meetings. LDP 2 noted that stripping during adverse weather conditions was to be avoided	C	
e	Land disturbance, including groundcover removal, will be limited in advance of mining activities consistent with operational requirements. Under normal circumstances, a maximum of 100 metres will be prepared in advance of mining.	LDP 2.PDF (Land disturbance protocol)	7/11/17 clearing of trees and topsoil stripping occurred to allow access for B-double and pit area. 0.21Ha disturbed, as minimal area as practicable.	C	
f	Groundcover will be removed with the topsoil, as opposed to prior to topsoil removal.	Site Inspection	Site inspection identified that ground cover and vegetative matter were included within stockpiles.	C	
g	Where long-term stockpiling of soil materials is planned (typically greater than 3 months) the stockpiles will be seeded and fertilised as soon as possible.	Environmental officer interview. Site Inspection 190207_topsoil plan and volumes.pdf	Evidence of seeding dates upon stockpiles could not be provided though vegetation was noted on topsoil stockpiles on-site. Drought conditions have impacted growth. Survey plan of stockpiles and whether they are topsoil or subsoil and the quality was noted. Soil sampling has been undertaken to determine amelioration requirements and identify soil type in unknown stockpiles. No more topsoil to be stripped.	C	
<b>Drilling and Blasting Activities</b>					
h	Water injection will be used on the drilling rig.	Interview Graduate Environment officer	Drill rigs use water injection.	C	
i	Coarse aggregates will be used for blast hole stemming at all times.	Interview Graduate Environment officer	Blue metal sourced from local quarries is used for blast hole stemming. Blue metal stockpile noted during the site inspection.	C	
j	Where practicable, blasting will be restricted during unfavourable weather conditions.	Interview Graduate Environment officer WHC-CHK Environmental Blast Checklist Rocglen	Meteorological conditions are checked prior to blasting on Sentinex. Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.	C	
k	When necessary, dust aprons will be lowered during on-site drilling.	Interview – Mine Manager	Dust aprons are fitted to the drill rigs and are a permanent fixture.	C	
<b>Overburden Ripping and Placement</b>					
l	Where practicable, ripping of softer overburden material will be avoided during periods of high winds.	Site Inspection	Removal of overburden material is generally limited to within the mine void at current stage of the project.	C	
<b>Coal Mining</b>					
m	When necessary, low moisture coal will be sprayed with water prior to excavation	Interview Graduate Environment Officer	Coal is reasonably moist but at times if the coal is dusty then spray is used from dust cart or spray gun. Coal is exposed for limited lengths of time on the face to prevent drying out.	C	
<b>Crushing and Screening</b>					
n	Notwithstanding the generally moist nature of the ROM coal pad, when necessary, water will be applied to the coal at the feed hopper, crusher and at all conveyor transfer and discharge points	Site Inspection	Demonstrated by ROM Manager spray system on conveyors. Three sprinklers are installed along the conveyor system and is in automatic i.e. sprays when the bin is being loaded and coal is on the belt otherwise system can be switched to manual if required. No excessive dust was noted during loading operations whilst on site.	C	
o	When necessary, some flexibility does exist to enable cessation of coal processing activities during periods of concurrent high winds and temperatures that have the potential to cause coal dust dispersal independent of water applications.	Interview - ROM Manager Site Inspection Adverse weather and noise monitoring log.	Prevailing wind direction is towards the north - ROM pad is exposed. Alerts are sent to the Mine Manager and OCE when wind speeds are over 6m/s for six consecutive 5 minute periods, and an action alarm set to trigger with sustained wind speeds of 8m/s for six consecutive 5 minute periods which allows operations to be modified if required.	C	
<b>Internal Transport</b>					
p	As required, internal roads will be watered, with emphasis on those subject to frequent trafficking.	Site Inspection	Dust cart was noted in use during site visit – also noted operating during night time inspection.	C	
q	The speed of all on-site vehicles and equipment will be restricted.	Site inspection	Speed limit of the site is 60km/h. Site inspection observed mine vehicles travelling slowly.	C	
r	All internal roads will be clearly defined to control their locations.	Site Inspection	Site inspection confirms roads are clearly marked.	C	
s	As roads within the Project Site become obsolete, they will be promptly ripped and revegetated.	Site Inspection	Site inspection of rehabilitated areas confirms this occurs.	C	



No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>External Transport</b>					
t	All trucks hauling product coal and coal rejects between Rocglen and the Whitehaven CHPP will be required to be fitted with roll-over tarpaulins.	Site Inspection	Haul trucks are fitted with roll over tarps.	C	
u	All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for noise emissions.	Weekly Scheduling	Contractors maintain own equipment. Transport of coal is completed by BIS Industries which operate Qube under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness which are carried in the vehicle.	C	
<b>Rehabilitation</b>					
v	As per the commitments listed in Section 8.6, Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, top dressed and vegetated to provide a stable landform.	Annual Rehabilitation Reports 2017 and 2018 Annual Reviews Site Inspection	Ecological conduct annual Rehabilitation Reports. At the start of the MOP (2015) 119.7ha had been rehabilitated. Reporting period is November through October from 2015 to 2020. The period Nov 2016 - October 2017 there was a requirement to rehabilitate 19.8 ha with no requirement to rehabilitate any further locations until after 2020.  During reporting periods where there us no MOP requirement to conduct a specified area of rehabilitation, there is a requirement for replanting to address prior rehabilitation failure. Note the auditor observed large areas of rehabilitation failure across the site.	O (Non-compliant)	Prepare a replanting plan to address rehabilitation failure.
<b>Monitoring</b>					
w	The existing Air Quality Monitoring Program (Whitehaven 2009a) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project	Letter from DPE  Interview with Environmental Officer	Air Quality and Greenhouse Gas Management Plan (Edition 2, Revision 4, dated May 2018) was approved by the DPE in letter.  Interview with Environmental Officer identified that the modifications were predominately related to administrative changes, update to reflect approvals	C	
x	A real-time PM10 monitor will be installed and operated. As recommended by PAE Holmes (2011), it is proposed to locate this monitor at the "Roseberry" residence, co-located within one of the existing HVAS.	Air Quality Monitoring Program	Site has real time monitoring via one Tapered Element Oscillating Microbalance (TEOM) monitor (PM10) at Roseberry.	C	
y	The existing weather station and HVAS within the "Glenroc" property will be relocated. As recommended by PAE Holmes (2011), it is proposed to move these items to "Costa Vale", which is along the axis of prevailing winds	Site inspection	Weather station on mine site observed and photographed during site inspection.	C	
<b>NOISE</b>					
<b>Project Design</b>					
a	The external batter slopes of the expanded Northern Emplacement Area will be re-shaped and revegetated in Years 1 and 2 of the Project to, amongst other things, minimise the projection of noise from overburden transportation and emplacement activities towards privately owned residences located to the north and north-east later in the mine life.	2016 IEA	Satisfied in 2016 IEA. Review of AEMR for 2011-12 (Year 1) confirms batter slopes of northern emplacement area commenced with revegetation occurring in the next reporting year (Year 2).	C	
<b>General Operation</b>					
b	Contractors, including all personnel and sub-contractors, will be advised of noise compliance limits prior to their work commencing. Contractors will be expected to take practical measures to limit noise generation during their activities where possible.	WHC-FRM-OC-Site Familiarisation Environmental Management PowerPoint WHC-ASS-Environmental Induction	All employees and contractors are required to sign off on a site familiarisation form which talks to noise, lighting, water, dust, waste, heritage fauna. The process requires the contractor or employees responsible host to provide information on environmental obligations, however it does not provide specific criteria.	ANC	Provide criteria levels within the existing familiarisation process.
c	Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics	Annual Sound Power Testing 2016, 2017 and 2018	Annual sound power testing is conducted by qualified consultant for all earth moving equipment.	C	
d	Site personnel will be required to pay due attention to site weather conditions and modify or stand down from operational activities if directed by mine management.		Weather station is established on-site that is capable of continuous monitoring.  Morning meetings at 8am - discuss environmental items including forecast wind conditions and dust from previous day. Noted this on site discussion board in meeting room. Assists with informing the sites operations.  Review of met data indicates temperature at 2m and 10m is measured. A tab for calculating inversion is also included however a review indicates the stability class is missing. The Tarrawonga tower is at 60m and is used to access temperature inversion, however no alerts for inversion conditions are currently relayed. For blasting the page takes the Tarrawonga reading for the stability class and has an OK to blast if weather conditions are favourable.	O (Compliant)	Consider the inclusion of stability classes to the inversion tab of the Sentinex program for the Rocglen site and investigate if alerts can be added to this page.
e	Where possible, equipment with lower sound power levels will be used in preference to more noisy equipment.	Interview Graduate Environment Officer	Equipment selection includes review of noise levels (fit for purpose main selection driver).	C	
f	All equipment used on-site will be regularly serviced to ensure the sound power levels remain at or below the levels used in the modelling undertaken by Spectrum Acoustics	Prestart checklist book	Mine equipment is inspected daily as part of prestart. Any defects are managed through "Pulse" program. SPL testing is completed annually. Regular servicing (as per the commitment) is completed. Pre-start list will identify mechanical issues that generate noise as a by-product of operating a machine.	C	
g	Mid-high frequency broadband reverse beepers are fitted to on-site mobile mining equipment	Interview Graduate Environment Officer	The auditor was informed that all equipment is fitted with mid-high frequency reverse beepers	C	
h	The on-site road network will be maintained to limit vehicle body noise.	Site Inspection	Roads were observed to be in good condition with minimal rilling and potholes.	C	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>External Transport</b>					
i	All transport activities, including the haul route used between Rocglen and the Whitehaven CHPP and the hours of coal haulage, will continue to be undertaken strictly in accordance with that approved under PA 06_0198.	Noted	Noted	Noted	
j	The haul route between Rocglen and the Whitehaven CHPP is fully sealed and will continue to be maintained under an existing contribution plan with Council	Site Inspection	Length of route was driven along as part of site inspection – road was in reasonable condition. Evidence of recent works.	C	
k	Drivers will be instructed to operate in accordance with an existing Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	30626 - Gunnedah - Traffic Management Risk Assessment - Interaction with other road users (Bis SWMS)	Bis document identifies safety measures and behaviours expected of drivers to be implemented. Currently does not include statement regarding compression braking.	O (Compliant)	Include note about avoiding compression braking.
l	The trucks will be speed limited to 93 km per hour to, amongst other things, minimise engine noise	Interview – Group Superintendent – Environment (Compliance) SWMS – PA3-27-2 BIS SWMS 30626 BIS WHSE Management Plan (issued February 2016)	Requirement for speed to be limited to 93km/h is included in the BIS WHSE Management Plan. The plan states trucks will be limited to a maximum speed of 93 km per hour via the electronic engine management system.	C	
m	All trucks transporting coal will be well maintained to ensure optimal operation, which will minimise the potential for noise emissions	NHVAS – BIS Industries BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	
<b>Monitoring</b>					
n	As per the commitments listed in Section 8.3, the existing Noise Monitoring Program (Whitehaven 2008d) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project. Specifically, "Retreat" or "Penryn" will be included as a noise monitoring location in the revised Program in place of "Costa Vale" (which is now owned by Whitehaven).	Noise Management Plan	Review of the Management Plan confirms that "Retreat" is one of the two monitoring locations, the other being "Surrey"	C	
o	Traffic noise monitoring will continue to be conducted at the "Brooklyn" and "Werona" residences on Blue Vale Road in accordance with the existing Road Noise Management Plan (Spectrum Acoustics 2008).	Road Traffic Noise Management Plan	Review of the Management Plan confirms two monitoring locations at "Brooklyn" and one at "Werona".	C	
<b>BLASTING AND VIBRATION</b>					
<b>Blast Design</b>					
a	Blast design and implementation will be undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.	Interview Graduate Environment Officer	Shot firer holds SafeWork NSW licence.	C	
b	Burden distances and stemming lengths will be designed to ensure that explosion gases are almost completely without energy by the time they emerge into the atmosphere.	Blast Design Checklist	Type of product and amount used is developed during blast design with hole depths and diameters considered accordingly.  Burden distances and stemming lengths are entered into design checklist.	C	
c	Blast design will ensure charges consistently detonate in carefully designed sequences	Blast Design Checklist	Blast design checklists include timing path to be selected (Echelon, V, Zip, ROW).	C	
d	Meteorological conditions will be analysed prior to blasting to avoid times when the potential for impact is heightened, and also endeavours will be made to blast at around midday over the winter period to avoid temperature inversions.	WHC-CHK Environmental Blast Checklist Rocglen	Meteorological conditions are checked prior to blasting on Sentinex.  Environment Officer checklist reviews 7 day forecast and notifies OCE of any potential issues.	C	
<b>Air Vibrations (Noise and Airblasts)</b>					
e	Noise and airblast generation will be controlled to ensure that all, or the majority of, explosion energy is consumed in fragmenting and displacing the overburden by the time the gases vent (via the broken burden rock and/or ejected stemming material) into the atmosphere. This will be achieved via: - Ensuring blasthole spacing is implemented in accordance with blast design; - Careful selection and implementation of burden distance and stemming length; - Using appropriate materials (for example, 20 mm aggregates) for stemming; - Ensuring that charges detonate in the correct sequence and with inter-row delays that provide good progressive release of burden; - Limited the maximum weight of explosive detonated in a given delay period (the maximum instantaneous charge (MIC)) to conservative and proven levels; and - Refining these controls on the basis of the blast monitoring program.	Blast Design Checklists  Blast Charge Design Excel Spreadsheet	Design sheets include check that pattern has been drilled to design – checked by drill and blast engineer.  Burden distance and stemming length in checklists.  Aggregate used for stemming is "blue metal".  Sequence type selected in blast design sheet  Blast charge design includes calculations based on tonnes of product, blast volume, area, spacings etc	C	
<b>Ground Vibrations</b>					
f	Blast design will ensure the minimum practicable weight of explosive detonates at an instant (minimising the MIC) by using the maximum number of delay periods in each blast	Blast Design Checklists Blast Charge Design Excel Spreadsheet	Design sheets include minimum practicable weight of explosives and the timing path.	C	
g	Blast design will ensure that most of the energy liberated by the charge(s) on a given delay number is consumed in providing good fragmentation, adequate displacement and/or a loose, highly diggable muckpile.	Blast Design Checklists Blast Charge Design Excel Spreadsheet	Design sheets include minimum practicable weight of explosives and the timing path. Type of muck pile also requested.	C	
<b>Dust and Other Post-Blast Emissions</b>					
h	Stemming columns will be designed to ensure ejection velocities are low.	Blast Design Checklists	Checklist includes stemming column design	C	
i	Appropriate aggregates for blasthole stemming and nonel delay-type or electronic detonators will be used to initiate charges.	Blast Design Checklists	Type of detonation specified in checklists. "Blue metal" used for stemming.	C	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Road Closures</b>					
j	For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures typically occur for a period of up to 10 minutes.	Site Inspection Interview Graduate Environmental Officer	Commitment is made within WHC_PRO_OC_Blast Fume Management to utilise blast boards and road closures.	C	
k	Whitehaven will inspect the road following the blast and any rock fragments removed from the road surface prior to re-opening.	AEMR 2016 and 2017	AEMR states that post blast inspections have been carried out and that has determined that current blast procedures are not compromising the safety of infrastructure, people or animals.	C	
l	Whitehaven will monitor the distance flyrock travels (if any) beyond the designed blast envelope and identify if further safeguards are required.	AEMR 2016 and 2017	AEMR states that post blast inspections have been carried out and that has determined that current blast procedures are not compromising the safety of infrastructure, people or animals.	C	
<b>Consultation</b>					
m	The proposed blasting schedule will be provided to all residents within a 3 km radius of the blast providing advance notice of the date and time of each proposed blast. A verbal confirmation on the day of the blast will also be undertaken.	Blast Notification Checklists – 15 February 2019	Rocglen has blast notification checklists which lists all stakeholders to be contacted prior to blasts. The list is completed with date of notification (email and/or phone which is dependent on requested format). The checklist includes the next upcoming blast which gives preferably 24 hours' notice.	C	
n	Whitehaven will erect a blast notice board near the mine entrance on Wean Road notifying passing motorists when the next blast is scheduled.	Site Inspection	Blast notice boards are in place and updated prior to blasts. Sentries are placed along road to prevent use of the road by traffic during blasting.	C	
<b>Monitoring</b>					
o	As per the commitments listed in Section 8.3, the existing Blasting Monitoring Program (Whitehaven 2008a) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project. Specifically, "Retreat", as the nearest privately-owned residence to the north of the Project Site, will be included as a blast monitoring location in the revised Program in place of "Costa Vale" (which is now owned by Whitehaven).	Blast Management Plan	Review of the Blast Management Plan indicates that permanent blast monitors are established at the "Retreat" and "Surrey" properties.	C	
<b>SURFACE WATER</b>					
<b>General</b>					
a	All hydrocarbon products will be securely stored.	Site Inspection	Workshop area inspected. Fuel products were in bunded locations. Diesel generated observed was internally bunded. Designated refuelling area had rollover bund.	C	
b	All of the mining fleet will be refuelled within designated areas of the Project Site.	Interview with Environmental Officer	Service truck is used to fuel trucks in pit, remainder of equipment is refuelled at designated, bunded location at workshop. Previous audit identified that the fuel truck has non-drip fittings and automatic shutoffs.	C	
c	With the exception of some maintenance activities on mobile equipment, all maintenance works requiring the use of oils, greases and lubricants would be undertaken within designated areas of the Project Site.	Interview with Environmental Officer	Workshop area was inspected and is primary location for maintenance, with in-pit service truck for machinery in pit. Trucks contain spill kits. Spill kits noted throughout the workshop area.	C	
d	All water from wash-down areas and workshops would be directed to oil/water separators and containment systems.	Interview with Environmental Officer Site Inspection WHC_CHK Monthly Environmental Inspection Checklist	Wash down area and workshop drains to pit which is treated through oil water separator before discharging to a pond adjacent to the workshop pad. This pond ultimately drains to SD3 before any potential discharge from site. Monthly checklists by environment checks oil/water separator and clarified water disposal area is free from hydrocarbon contamination (visible). Prior to discharge oil and grease is always sampled .	C	
e	All storage tanks will be either self-bunded tanks or bunded with an impermeable surface with a capacity to contain a minimum of 110% of the largest storage tank capacity.	Site Inspection WHC_CHK Monthly Environmental Inspection Checklist	Storage tanks self bunded and/or contained within bund with impermeable surface noted in the workshop area. Monthly inspection also includes checks all hydrocarbons and chemicals are stored within bunded areas.	C	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
f	Chemical flocculation to help increase the settling times of the sediment (TSS) in the water column will also be employed as required.	Environmental officer interview/ Dam floc records	Dom flocculation occurs and is tracked through Dam floc records. Current Environmental Officer has not had to flocculate during tenure on-site. Previous audit identified that Magnafloc LT425 Coagulant is used. Unknown if this is an EPA approved flocculant.	O (assumed compliant as proprietary product)	Confirm that this coagulant is approved by the EPA for use.
g	As required, appropriate drainage structures and erosion and sediment controls will be installed and maintained.	Site Inspection	Sediment basin SD3 was observed to have been desilted. The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile. Scour was present in rehabilitation areas where revegetation has been unsuccessful. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	NC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site. Explore whether improvement to Dam B inlet and outlet location is possible.
h	All efforts will be undertaken to ensure that any water discharged from the Project Site via the LDPs meets the quality limits imposed by the DECCW on the site's EPL.	Environmental Officer Interview EPA Doc reference: DOC17/584921-02 Monitoring Results	Discharges from site were compliant with EPL requirements by either meeting the criteria when sampled, treated and released via controlled discharge or by overflowing when greater than design storm event.  Overflow event reported on 1 December 2017 was erroneously reported and no environmental harm was caused by an overflow event.	C	
i	Key changes, as detailed in Appendix M, to be integrated into the existing surface water management system are:  - Additional water management controls to deal with water from the increased disturbance footprint in the northern area of the site;  - Additional water management controls to address TSS issues during wet weather discharge;  - Relocation of the Mine Water Dam; and  - More effective diversion of clean water from off-site catchments to the east.		Addressed	C	
j	Dirty water generated from disturbed areas to be captured and diverted using contour banks and drop structures in a manner that minimises the potential for concentrated overland flow and subsequent erosion. This water will be channelled through a series of sediment basins to reduce sediment loads prior to discharge.	Site Inspection	Site inspection confirms installation of banks, contouring to divert water to sediment basins. Noted also some basins were undergoing desilting. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	O (non-compliant)	Ensure that the inlet and outlet for Dam B are appropriately located to ensure retention time to allow sediment capture.
k	Water generated within the open cut pit, primarily as a result of rainfall/runoff and some groundwater seepage, to be managed within the open cut via in-pit sumps. This water will be directed to and contained within these in-pit sumps until it is necessary to pump the water to the new Mine Water Dam, which will be constructed as a 'turkeys nest' to receive mine water only.	Site Inspection	This dam is no longer required as in-pit water free drains to VWD1 and VWD2.	NT	
l	Clean water diversions will be constructed wherever possible upstream of disturbance areas to minimise the amount of dirty water to be contained and treated within the dirty water management system.	Site Inspection	Site inspection confirms presence of clean water diversions.	C	
m	Progressive rehabilitation of all re-shaped surfaces to assist in reducing the level of TSS (and possible high pH and salinity) in runoff from disturbed areas. This will also reduce the dependence on sediment controls and generally assist in improving water quality.	Site Inspection	Rehabilitation was observed during site inspection, drought affecting establishment rates. Western Emplacement to be regraded for rehabilitation.	C	
n	Water collected in the open cut extraction pit and/or dirty water dams will be used, as much as possible, for dust suppression purposes. This is the preferential use of water on-site to minimise the chance of pollution to downstream waterways.	Interview with Environmental officer	When in-pit water was available it was used for dust suppression. Water is currently imported from Canyon.	C	
o	Sediment control structures will be maintained to ensure the design capacities are preserved for optimum settling rates. This will be most critical for those 'end-of-line' sediment basins that discharge from the Project Site.	Site Inspection	Desilting of sediment Basin SD3 was observed during the audit. Dams were predominately dry and currently optimum time for desilting. EO noted that there are other basins that could be desilted. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	O (compliant)	Optimisation of settlement may be possible by minor modifications to Dam B. Schedule desilting of identified dams for current dry periods - can also possibly supplement topsoil if sampling deems suitable.



No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
p	Implementation of an effective revegetation, maintenance and monitoring program.	interview with Graduate environmental officer Site Inspection	Drought is affecting revegetation success. Regrading is to occur on the western emplacement area  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns.  Environmental Officer identified no maintenance program - occurs on ad hoc basis.	C	
<b>Site Water Management Plan</b>					
q	Within 12 months of Project Approval, a new Site Water Management Plan will be prepared in accordance with regulatory requirements and the Blue Book (Volume 1 and Volume 2E).			NT Closed Previous Audit	
<b>Site Water Balance and Discharge</b>					
r	Whitehaven will consider and, where appropriate, adopt the following to improve site water balance and minimise uncontrolled overflow discharge:  - The proposed dams will be built to at least the specified sizes, and made larger where practical to provide additional storage in order to further reduce the chance of uncontrolled overflow discharge. Increasing the total storage will provide opportunity to retain and treat water prior to controlled discharge;  - Water will be promptly transferred amongst sediment basins to ensure the maximum available on-site storage capacity of rainfall events is maintained; and  - That controlled discharge of treated (settled and/or flocculated) water will be undertaken to draw down the water storage within all the dirty water dams on-site, which will provide the capacity to contain the majority rainfall events and reduce uncontrolled overflow discharge.	Water Management Plan	Accumulated runoff is pumped to upstream basins. SD3 had a stand pipe at the time of the inspection to allow for water truck filling. All basins were dry or had very limited collected runoff during the site inspection.  Water balance includes locations of where to pump basin water to manage capacity.  No uncontrolled discharge occurred in 2018. Only one uncontrolled discharge on 20 November 2017. ES1729370_0_COA_ sample analysis from this event. Manual rainfall gauge results recorded (electronic gauge was blocked by ants). All adjacent stations recorded the volume of the large rainfall event as documented in 2017_11_event report-water discharge-EPA. Discharge was sampled and was above criteria but event was above design storm event	C	
<b>Drainage Lines</b>					
s	Sections of drainage lines that are or will be impacted upon by the mining operation will be rehabilitated post-mining generally in accordance with Section 5.3.3 of the Blue Book (Volume 1) and the Guidelines for Controlled Activities – In-Stream Works (DWE 2008, as cited in GSSE 2010c) for watercourse rehabilitation and riparian zone rehabilitation.	Site Inspection	Clean water diversions in place such that drainage lines remain functional	C	
<b>Licensed Discharge Points</b>					
t	While LDP 11 will continue to be used at the southern end of the Project Site, LDP 12 will be superseded and relocated in consultation with the EPA.	Previous audit report	Completed during previous audit	C	
<b>Monitoring</b>					
u	As per the commitments listed in Section 8.3, the existing surface water monitoring program will be reviewed and, as necessary, updated to integrate relevant aspects of the Project. Table 47 presents a summary of the proposed surface water monitoring.	Section 7 – Environmental Assessment – Part 3 of the EA Water Management Plan	Table 47 matches Table 10 in Section 4.9.4 Surface Water Monitoring Locations and Frequency of the Plan.	C	
<b>Groundwater Monitoring</b>					
a	All hydrocarbon products will be securely stored.	Site inspection	Hydrocarbon products stored in bunded area around the maintenance shed. Refuelling on site done with designated refuelling/service trucks.  Fuel to groundwater pump inside ISO tank which feeds pump. Pump for mine water has self-contained tank.	C	
b	All of the mining fleet will be refuelled within designated areas of the Project Site	Interview Maintenance Superintendent	Refuelling of equipment is done at the designated area at the maintenance building as much as practicable otherwise refuelling of equipment is completed by refuelling/service trucks which are fitted with non-drip fittings and automatic shot offs.	C	
c	With the exception of some maintenance activities on mobile equipment, all maintenance works requiring the use of oils, greases and lubricants would be undertaken within designated areas of the Project Site.	Interview Maintenance Superintendent	Maintenance is completed primarily at the maintenance shed where practicable. Otherwise maintenance is completed by service trucks inside the pit – these vehicles contain spill kits, closed containers for oil – use evacuation hoses with non-drip spill fittings for oil collection.	C	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
d	All water from wash-down areas and workshops would be directed to oil/water separators and containment systems.	Site Inspection WHC-CHK Monthly Environmental Inspection Checklist	Wash down area and workshop drains to pit which is treated through oil water separator before discharging to a pond. This pond drains to SD3 before discharge from site. Monthly checklists by environment checks oil/water separator and clarified water disposal area is free from hydrocarbon contamination (visible).	C	
e	All storage tanks will be either self-bunded tanks or bunded with an impermeable surface with a capacity to contain a minimum of 110% of the largest storage tank capacity.	Site Inspection WHC-CHK Monthly Environmental Inspection Checklist	Storage tanks self bunded and/or contained within bund with impermeable surface. Monthly inspection also includes checks all hydrocarbons and chemicals are stored within bunded areas.	C	
f	As per the commitments listed in Section 8.3, the existing groundwater monitoring program will be reviewed, updated and implemented to integrate relevant aspects of the Project.	Water Management Plan (revision date May 2018). Approval of Rocglen MPs July 2018	WMP was updated in May 2018 and approved on 12 July 2018.	C	
g	Bores will be cleaned out (air-lift developed) and depth checked with a weighted tape. Bores will then be geophysically wireline logged (SP/SPR and Gamma) to confirm slotted intervals and the nature of the strata over slotted intervals.	NOW Form A for MP2A, 3A, 4A, 4B, 5A	Form A's have been provided however these do not include details of bore development or confirmation bores were geophysically wireline logged.  Installation reports which includes details of the well development and logging details was not available during the audit period.	NV	Installation reports which include well development and logging details are required to complete the assessment of compliance with this condition
h	All monitoring bores will be surveyed for location and level (both ground level and the level of the RP from which groundwater levels are measured).	NOW Form A for MP2A, 3A, 4A, 4B, 5A and Excel spreadsheet	Monitoring bores as listed have been surveyed which includes mAHD.	C	
i	Monitoring of groundwater levels will initially be undertaken on a monthly basis for the first year of the Project, after which the interval may potentially be relaxed subject to review of the results. In the longer term a monitoring interval of three months is anticipated. Samples will be analysed for all major ions, including carbonate.	2017 AEMR	Monitoring of groundwater levels was not completed initially on a monthly basis for the first 12 months of the Project. Groundwater level is measured quarterly and reported in the AEMR.	ANC	Monitoring of groundwater levels was not completed initially on a monthly basis for the first 12 months of the Project. No further actions are recommended as this is considered a legacy ANC.
j	Pressure transducers/dataloggers will be installed in monitoring bores MP-01 to MP-05 for the continual recording of groundwater levels. These instruments will be downloaded every 2 months. MP-04 and MP-05 will be deepened to at least 10 metres below the water table.	Rocglen Monitoring Points.xls 2017 AEMR	Dataloggers are installed in MP2a, MP3a, MP4a, MP5a. MP1 has been covered by the production area  Note is included to download every second month.  Pressure transducers/loggers installed in monitoring bores on site in accordance with the EA have shown relatively consistent groundwater levels at all 5 recording sites for the previous two years.  MP-5a is a piezometer installed directly adjacent to MP-5. Since monitoring commenced in March 2013, it showed a reasonably consistent SWL until September 2013, where the SWL dropped 4.4m to 71.25m. The SWL dropped a further 5.3m in November 2013, where it remained consistent at around 76.6m. For the previous three reporting periods the bore has remained consistently dry. Being in relatively close proximity to the open cut pit (within 1km), drawdown is not unexpected	O (Compliant)	Investigation required for groundwater level changes with MP5a
k	In order to address the concerns of the NOW in regard to the potential for impact on alluvial aquifers of the Namoi River and associated tributaries, the following program of investigations will be undertaken:  - Bores MP-04 and WB-01 are nominally located within the alluvium south and north of the mine, respectively. Once this is confirmed through the above commitments, a second bore will be drilled adjacent to each of them, to a depth at which the base of the alluvium is intersected. This adjacent bore will be completed as a monitoring bore in the Maules Creek Formation and have a pressure transducer/datalogger installed for continuous water level monitoring. Such actions will need to be agreed to by the relevant landowners; and  - There is some uncertainty regarding the nature of the interface between the southern alluvium and the weathered conglomerate profile of the Maules Creek Formation at the southern end of the proposed pit. On this basis, a pair of piezometers will be installed immediately to the south of the proposed pit, one in the Belmont Seam and one in the alluvium/weathered conglomerate. Also, hydraulic testing will be undertaken on the bore in the alluvium/weathered conglomerate to allow refinement of the groundwater model in this regard.		Not triggered during audit period.	NT	

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Flora and Fauna</b>					
a	All efforts will be made by Whitehaven to avoid disturbance of the vegetation communities within the Project Site and to maintain and enhance as much of the existing remnant vegetation on-site, in addition to the proposed biodiversity offset areas (see Section 5.8), as possible.	Site Inspection	Areas not impacted by mining are fenced to prevent entry.	C	
b	A high level of hygiene will be adopted in respect to vehicle and machinery to help prevent soil-borne disease transmission and weed seed dispersal.	Site Inspection	Trucks transporting coal remain on sealed roads. On site machinery travel on designated internal roads.	C	
c	Strict erosion and sediment control measures will be installed, monitored and maintained to prevent the erosion and sedimentation impact on adjacent areas.	Site Inspection	Sediment basin SD3 was observed to have been desilted. The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile. Scour was present in rehabilitation areas where revegetation has been unsuccessful. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	NC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site. Explore whether improvement to Dam B inlet and outlet location is possible.
d	Dust control measures will be implemented to protect adjacent retained vegetation communities.	Air Quality and GHG Management Plan Site Inspection	Site inspection noted dust was adequately controlled.	C	
e	The minimal practicable amount of clearing will be undertaken as a general objective, particularly within those areas that currently contain identified threatened species or ecological communities.	Site Inspection Interview- Mine Operations Manager	Clearing is completed prior to mine pit moving to area. Mine pit is moving towards site infrastructure areas.	C	
f	Where possible disturbance areas will be marked to protect adjoining vegetation prior to disturbance activities in order to reduce potential damage from uncontrolled or accidental access.	Site Inspection	Disturbance boundaries were noted to be marked during site inspection specifically at Dam B1 west of the Northern Emplacement.	C	
g	Stockpiling of materials will occur within already disturbed areas.	Site Inspection Standard Clearing Protocol WHC_PRO Clearing and Pre-Strip	Procedure has been developed for clearing and pre-stripping activities. Site Inspection confirms stockpiles occur in already disturbed areas in designated areas.	C	
h	Weed management, monitoring and control practices will be implemented to minimise the spread of exotic species into natural areas within the site.	WHC_CHK Monthly Environmental Inspection Checklists	Monthly check for weeds in rehabilitated areas completed by Environment Officer. Site vehicles remain on internal roads. Weeds sprayed by contractor on campaign basis.	C	
i	A tree felling protocol will be developed, by a suitably qualified and licensed ecologist with previous experience supervising the felling of trees, in order to minimise harm to fauna species during clearing activities.	Standard Clearing Protocol	A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period.	C	
j	Where possible, tree felling will be supervised by the ecologist that developed the tree felling protocol or by another suitably qualified and licensed ecologist.	Standard Clearing Protocol	A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period. Clearing and Pre-strip Procedure includes operational aspects to felling trees. The above mentioned standard clearing protocol includes ecological considerations for tree felling.	C	
k	Where trees are to be removed an assessment of the surrounding level of tree hollow provision will be undertaken by a suitably qualified ecologist in order to determine the need for local supplementing of tree hollows (using salvaged tree hollows or nest boxes).	Standard Clearing Protocol WHC_PRO Clearing and Pre-Strip	A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period. Clearing and Pre-strip Procedure includes operational aspects to felling trees. The above mentioned standard clearing protocol includes ecological considerations for tree felling.	C	
l	Mature and hollow-bearing trees will be retained wherever feasible within the site.	Standard Clearing Protocol WHC_PRO Clearing and Pre-Strip	A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period. Clearing and Pre-strip Procedure includes operational aspects to felling trees. The above mentioned standard clearing protocol includes ecological considerations for tree felling.	C	
m	Vegetation to be removed will be clearly marked in the field using temporary fencing (flagging tape or similar) so that the boundaries are clearly established and to minimise the potential for equipment to accidentally enter areas to be retained.	Standard Clearing Protocol WHC_PRO Clearing and Pre-Strip	A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period. Clearing and Pre-strip Procedure includes operational aspects to felling trees. The above mentioned standard clearing protocol includes ecological considerations for tree felling.	C	
n	Where possible, the timing of clearing activities will be undertaken at such times to avoid removal of hollow-bearing trees during breeding season of threatened species.	Standard Clearing Protocol WHC_PRO Clearing and Pre-Strip	A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period. Clearing and Pre-strip Procedure includes operational aspects to felling trees. The above mentioned standard clearing protocol includes ecological considerations for tree felling.	C	
o	Regular monitoring of the vegetation within the Project Site and offset areas will be undertaken in order to enable effective management with regards to rehabilitation (planting), regeneration, watering, fencing and weed control.	Monthly Environment Inspection checklists	Eco Logical complete annual monitoring. To meet this commitment. Monthly Inspections are completed by the Environment Officer.	C	



No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Aboriginal Heritage</b>					
a	As per the commitments listed in Section 8.3, the existing ACHMP (Whitehaven 2008c) will be reviewed and, as necessary, updated to integrate relevant aspects of the Project.	Environmental Management Plans, Correspondence with DPE 12 July 2018.	During the audit period WHC updated the HMP. Correspondence from DP&E dated 12 July 2018 states that the management plans listed (including the HMP) have been reviewed and address requirements of Condition 24 Schedule 3.	C	
b	All efforts will be made by Whitehaven to minimise disturbance within the Project Site.	Site Observations	The HMP was noted to be implemented in most cases observed, however with regard to the requirement to protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6), the auditor noted the fencing to be temporary in nature and in some places wind damaged.	O (Non-compliant)	The auditor recommends WHC upgrade fencing to enhance protection, monitoring and management of scarred trees (NPWS # 20-4-0194 and # 20-4-0195).
c	Liaisons will continue to be undertaken with the registered Aboriginal stakeholders and other interested parties until all issues in relation to the management of Aboriginal cultural heritage have been resolved.	Interview Graduate Environment Officer	No further issues have been raised/occurred during audit period however it is understood the registered Aboriginal stakeholders and other interested parties have not been consulted.	O (Compliant)	Liaison with the registered Aboriginal stakeholders and other interested parties should be undertaken to confirm adequate protection is provided for scarred trees.
d	If impact to the Aboriginal sites identified with the Project Site (RPS Rocglen IF1, RPS Rocglen AS1 and RPS Rocglen AS2) is unavoidable, a surface salvage will be undertaken in accordance with Section 3 of the ACHMP (Whitehaven 2008c). Artefacts salvaged will be transferred to relevant Aboriginal groups under a Care and Control Permit under Section 85A of the <i>National Parks &amp; Wildlife Act (NP &amp; W Act)</i> .	NA	Triggered prior to current audit period	NT	
e	Protective measures designed to prevent damage to the scarred trees (NPWS # 20-4-0194 and NPWS #20-4-0195) will be enacted upon as per recommendations in Appleton (2007) and the ACHMP (Whitehaven 2008c).		The HMP was noted to be implemented in most cases observed, however with regard to the requirement to protect, monitor and/or manage the Aboriginal sites on site that are outside the project disturbance area on site, including measures to protect scarred trees (NPWS # 20-4-0194 and # 20-4-0195 at locations as shown in Appendix 6), the auditor noted the fencing to be temporary in nature and in some places wind damaged.	O (Compliant)	The auditor recommends WHC upgrade fencing to enhance protection, monitoring and management of scarred trees (NPWS # 20-4-0194 and # 20-4-0195).
f	In areas where surface excavation might occur in the future within 25 metres of the east-west oriented drainage line, Whitehaven will follow protocols in Section 4.1(iii) of the ACHMP (Whitehaven 2008c).	Heritage Management Plan	The HMP states that surface disturbance will not be undertaken within 25m of the east-west drainage line in the northern area of the site.	C	
g	In general during the course of the Project, if it is suspected Aboriginal cultural heritage material has been encountered, work will cease immediately in that locale. The OEH, along with the RCLALC, BBGTP, GGAC and MMAC, will be notified. Works will only recommence when an appropriate and approved management strategy has been agreed to by all of the relevant stakeholders.	Heritage Management Plan WHC_PRO Clearing and Pre-Strip	This condition is addressed in the LDP.	C	Consider including this commitment into the WHC_PRO Clearing and Pre-Strip procedure as this is when an encounter with cultural heritage material is likely to occur.

No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
h	In the event that skeletal remains are uncovered during operations, work will stop in the vicinity immediately and the NSW Coroner's Office and NSW Police contacted. If skeletal remains are deemed to be of Aboriginal origin, a representative of the local Aboriginal Community and the OEH will be consulted.	Heritage Management Plan WHC_PRO Clearing and Pre-Strip	WHC_PRO Clearing and Pre-Strip does not include commitment.	Refer above commitment	Consider including this commitment into the WHC_PRO Clearing and Pre-Strip procedure as this is when an encounter with cultural heritage material is likely to occur.
<b>European Heritage</b>					
a	If significant European cultural heritage material is uncovered during site works, work will cease in that area immediately. An archaeologist will be contacted to assess the significance of the remains and works will only recommence when an appropriate and approved management strategy is instigated	Heritage Management Plan	The heritage investigation for the site confirmed no European Heritage features were identified at the site.	C	
<b>Visual Amenity</b>					
a	All efforts will be made by Whitehaven to minimise the visual impact of the mine during and post-operation.	Rehabilitation Management Plan	Plans include establishment of a strip of rehabilitated bushland along the eastern site boundary, site wide strategic tubestock planting, and exclusion of stock from areas identified for bushland and pasture re-establishment through fencing.  Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area. Efforts have been made to plant trees in this area but the planting failed.  Bushland will be established once operations have finished in three years.	NC	Consider installing visual screen along Wean Rd.
b	As per the commitments listed above in Section 8.6, Whitehaven will adopt a progressive approach to the rehabilitation of disturbed areas within the Project Site to ensure that, where practicable, completed mining and overburden emplacement areas are quickly shaped, topdressed and vegetated. Early reshaping and revegetation of the external batter slopes of the emplacement areas will be targeted as a priority.		Ecological conduct annual Rehabilitation Reports. At the start of the MOP (2015) 119.7ha had been rehabilitated. Reporting period is November through October from 2015 to 2020. The period Nov 2016 - October 2017 there was a requirement to rehabilitate 19.8 ha with no requirement to rehabilitate any further locations until after 2020.  During reporting periods where there is no MOP requirement to conduct a specified area of rehabilitation, there is a requirement for replanting to address prior rehabilitation failure. Note the auditor observed large areas of rehabilitation failure across the site.	O (Non-compliant)	Prepare a replanting plan to address rehabilitation failure.
c	In addition to retaining areas of existing remnant vegetation, it is proposed to restore approximately 206 hectares (58 percent) of the disturbed area within the Project Site as rehabilitated bushland. This large area, which includes the western slopes of the Northern and Western Emplacement Areas, will blend in well with the retained remnant vegetation areas within the Project Site and within the adjacent Vickery State Forest and "Yarrowonga" property.	Site Inspection Rehabilitation Management Plan	Areas not impacted by mining are fenced to prevent entry.  Rehabilitation Management Plan – refer Section 3.4.1 for commitment.	C	
d	Strategically placed bushland tree lots will be integrated into the post-mining landform to break-up the landform and provide visual texture. This will be complimented by the establishment of pasture grass areas that will provide short-term visual impact mitigation prior to the trees becoming established.	Rehabilitation Management Plan Mining Operations Plan	Plans include establishment of bushland tree lots in the northern and western emplacement areas along the eastern batter.  Pasture grasses will be established on eastern batters of western and northern emplacement areas.	C	
e	An earthen bund of appropriate height will be established between the realigned Wean Road and the active pit area. This bund will be vegetated immediately following construction. The bund will provide an effective visual screen of the site from Wean Road. In addition to the bund, a strip of bushland will be established to screen the view of the final void and generally improve the visual amenity from Wean Road.	Site Inspection Interview – Mine Manager	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area. Efforts have been made to plant trees in this area but the planting failed.  Bushland will be established once operations have finished in three years.	NC	Consider installing visual screen along Wean Rd.
f	The requirements of the Australian Standard AS 4282 1997 – Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours. In particular, lighting plant will be positioned and directed away from surrounding residences and aimed downwards to avoid light spill onto adjoining lands and public roads	WHC-STD-OC- Lighting Plant and Generators	A Lighting audit was completed by MIDAS in 2017 and due consideration given to lighting.	C	
<b>Greenhouse Gas Emissions</b>					
a	The Greenhouse and Energy Efficiency Plan prepared by Denis Cooke & Associates in June 2009 in accordance with PA 06_0198 will continue to be implemented at Rocglen in order to promote continuous change and sustainable improvement in energy management and efficiency	Rocglen Coal Mine Project Greenhouse and Energy Efficiency Plan, June 2009	Review of the plan indicates savings and efficiencies were built into the design of the plant i.e. all purchased equipment and plant specified to achieve the most efficient energy usage over the expected life of the equipment and plant with consideration given to whole of life costing techniques in the evaluation and selection process.  Operational controls include overburden movement minimum distance to final destination without re-handling if possible. Operational and economic drivers ensure this is completed. Road grades are also kept to <10% grade.	C	



No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Traffic and Transport</b>					
a	Coal transportation will be undertaken via the approval haulage route between Rocglen and the Whitehaven CHPP.	SWMS – PA3-27-2 BIS SWMS 30626 – Interaction with other Public Road Movement Site Inspection	Induction and Code of Conduct describes requirement. SWMS's also describes requirement which is issued to truck drivers. Site inspection over period 18-20 February 2019 noted absence of coal haul trucks on Wean Rd (alternate route).	C	
b	Coal transport will be undertaken between the approved times of 7am and 9:15pm Monday to Friday, and between 7am and 5:15pm on Saturdays.	Logistic Manager Excel spreadsheet Weighbridge docket for 20 December 2018, 14 & 18 February 2019	The coal bins automatically record the truck number, time of dispatch which gives an approximation of operating hours for the trucks. A review of weighbridge dockets indicate the ROM Operator loads trucks before seven (20 December 2018, 6.23am) but anecdotally trucks do not leave site before seven.	Duplicated with MCoA 3.29	
c	On school days, Whitehaven will maintain the communication system between the truck drivers and the local school bus driver. The system has been negotiated between Whitehaven and the local bus drivers and involves two-way radio communication to ensure that trucks do not exceed 40 km per hour when travelling in the vicinity of the school bus.	SWMS – PA3-27-2 BIS SWMS 30626 – Interaction with other Public Road Movement	Trucks use Channel 19 to communicate with school bus driver. SWMS lists requirement to travel at 40km/h when in vicinity of school bus.	C	
d	All trucks transporting coal from the mine and backloading reject from the Whitehaven CHPP will be covered with fitted roll-over tarpaulins.	BIS SWMS 28410 – Loading ex Hopper Risk Assessment Site Inspection	SWMS lists requirement to cover loads with tarp – if unable to be covered then load must be tipped and unit returned to base to correct problem. Site inspection over 18-20 Feb 2019 confirmed all trucks had tarps fitted and in use.	C	
e	All trucks transporting coal will be well maintained to ensure optimal operation.	NHVAS – BIS Industries BIS Industries - WHSE Management Plan	BIS transports all coal from and coal reject to site which operate under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness with records carried in the vehicle.	C	
f	Drivers will be instructed to operate in accordance with a Transport Policy and Code of Conduct, which identify aspects such as travelling speeds, general behaviour, avoidance of exhaust brakes, load coverage, complaints and disciplinary procedures. The Policy and Code apply to all employee and contractor-owned vehicles.	30626 - Gunnedah - Traffic Management Risk Assessment - Interaction with other road users (Bis SWMS)	Bis document identifies safety measures and behaviours expected of drivers to be implemented. Currently does not include statement regarding compression braking.	O (Compliant)	Include note about avoiding compression braking.
g	The on-going use of the road network will be covered under the arrangements of the existing road maintenance agreement with Gunnedah Shire Council to ensure the subject roads continue to be adequately maintained.	Road Maintenance Agreement issued August 2009	Ongoing agreement with the GSC stipulates requirements for the company to maintain public roads used by the project. Road Infrastructure Coordinator based at the CHPP is the contact for GSC with any concerns regarding road conditions managed through this position.	C	
<b>Waste Management</b>					
a	All production wastes and non-production wastes will be managed in accordance with current approved waste management strategies (see Section 4.12).	Interview with Graduate Environmental Officer Review of Waste Management Spreadsheet January 2019 Invoice INV-6437 Invoice INV-6419	Waste streams were noted to be segregated in the workshop area. Waste is removed from the site by licenced waste contractor Namoi Waste Corp as demonstrated by invoices provided.	C	
b	Whitehaven will approach waste generation and management according to the following principles – (a) waste avoidance; (b) waste re-use; (c) waste recycling; and (d) waste removal and disposal.	Site Inspection	Wastes for site are limited to primarily wastes from maintenance activities with waste oil and scrap metal main wastes generated. This material is collected by Namoi Waste Corp and taken to Cleanaway Tamworth for recycling.	C	
<b>Bushfire Hazard</b>					
a	Vegetation will be cleared away from around blast sites for a distance of greater than 20 metres.	Interview Graduate Environment Officer	Topsoil and subsoil is removed prior to blasting new areas otherwise blasting is completed in hole.	C	
b	All coal will be removed from open cut around blast sites.	Interview Graduate Environment Officer	Working areas are kept to a minimum with coal removed near blast areas.	C	
c	Blast design and implementation will be undertaken by a suitably qualified blasting engineer and/or experienced and appropriately certified shot-firer.	Interview Graduate Environment Officer	Shot firer holds SafeWork NSW licence.	C	
d	An inspection of blast sites will be undertaken prior to blast.	Interview Graduate Environment Officer	Blast sites are inspected prior to firing.	C	
e	Water truck/cart will be available to douse any fire ignited or smouldering vegetation.	Interview Graduate Environment Officer	Water cart is available on site at all times including blasts.	C	
f	Refuelling will be undertaken within designated fuel bays or within cleared area of the Project Site and vehicles will be turned off while refuelling.	Interview Graduate Environment Officer	Equipment is fitted with automatic shut offs, air vents on tanks with back valves so prevent overfilling, all trucks have spill kits.	C	
g	No smoking policy will be enforced in designated areas of the Project Site.	Interview Graduate Environment Officer	Smoking is allowed in office area on outside veranda. As of July 1 2016 all Whitehaven Coal sites will be smoke free. This initiative has been worked towards for the last towards for 12 months.	C	
h	Fire extinguishers will be maintained within site vehicles.	Site Observations	All vehicles contain fire extinguishers – vehicles used during site inspection confirm presence.	C	
i	Coal stockpiles will be regularly inspected and, as required, watered.	Interview Graduate Environment Officer	Coal stockpiles are kept to within approximately 150,000tonnes which equates to 45 days. Stockpiles are checked daily by conveyor operator.	C	
j	The height and volume of coal stockpiles will be controlled to limit the duration coal is retained in stockpiles.	Interview Graduate Environment Officer	Pit extraction is on campaign basis however, stockpiles are maintained as much as practicable around 150,000 tonnes.	C	



No	Assessment Requirement	Reference/Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
k	Whitehaven will regularly liaise with the NSW Forests and NSW Rural Fire Service in relation to the bushfire hazard presented by the Vickery State Forest and to a lesser extent the nearby CCC Zone 2 Kelvin.	Interview Graduate Environment Officer	Site representative attended a Mines - Fire Safety Meeting 5 July 2018. WHC has engaged LRM Fire and Rescue for the 2018/2019 fire season to provide Bushfire Response Service on or adjacent to WHC land during FY19.	C	
<b>Socio-Economic</b>					
a	Whitehaven will continue to engage the community in consultation for the purposes of providing information relating to the Project and company operations in general. It is anticipated that consultation will include: - Circulation of information and newsletters, as required, relating to mining activities (for example, blasting schedule); and - Continuation of the Rocglen CCC established under PA 06_0198 for the existing Rocglen operation.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	The most recent CCC meeting was held 12 September 2018 with the next meeting scheduled 13 March 2019. Members of the CCC are notified a month in advance, correspondence sighted during the audit.	C	
b	Whitehaven will respond to any community complaints within 24 hours of receipt. All complaints will be investigated and the results of the investigation reported to the complainant in a timely manner.	Complaints - website and onsite records.	Review of complaints indicates date/time of complaint is recorded. The date/time of responses is not recorded.	ANC	Consider including date/timeline of response to any complaints so that assessment against this commitment can be completed.

## **Mining Lease 1620**



No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>ML1620</b>					
<b>Notice to Landholders</b>					
1	<p>Within a period of three months from the date of grant/renewal of this lease or within such further time as the Minister may allow. The lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface~ An adequate plan and description of the lease area must accompany the notice~</p> <p>If there are ten or more landholders affected. The lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated~ The notice must indicate that this lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area~</p>	Independent Environmental Compliance Audit - Umwelt (2013)	Previous Audit report indicated this is not applicable to environmental audit.	NT	
<b>Environmental Harm</b>					
2	The proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.		Noted: Refer to individual management plans.	Note	
<b>Mining Operations Plan</b>					
3a	Mining operations must not be carried out otherwise than in accordance with a Mining Operations Plan (MOP) which has been approved by the Director-General of the Department of Primary Industries.	MOP	MOP for Rocglen Coal Mine prepared for the period November 2015 to October 2020. ERM understands a Closure MOP is currently being prepared and is to be submitted by the end of February 2019.	C	
3b	The MOP must:		i) Appendix A MOP Plans	C	
	i) identify areas that will be disturbed by mining operations;		ii) Section 3		
	ii) detail the staging of specific mining operations;		iii) Sections 4-9		
	iii) identify how the mine will be managed to allow mine closure;		iv) Section 4		
	iv) identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment;	Mining Operations Plan	v) Section 1.2 and Section 4		
	v) reflect the conditions of approval under:		vi) Section 2		
	<i>the Environmental Planning and Assessment Act 1979</i>				
	<i>the Protection of the Environment Operations Act 1997</i>				
	and any other approvals relevant to the development including the conditions of this lease; and				
	vi) have regard to any relevant guidelines adopted by the Director-General.				
3c	The titleholder may apply to the Director-General to amend an approved MOP at any time~	Note	Noted	Note	
3d	It is not a breach of this condition if:	ML1620	Noted	Note	
	i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the <i>Mining Act 1992, the Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997 or the Occupational Health and Safety Act 2000</i> ; and				
	ii) the Director-General had been notified in writing of the terms of the order or direction prior to the operations constituting the breach being carried out				
3e	A MOP ceases to have affect 7 years after date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 5 does not constitute an approval for the purpose of this paragraph unless otherwise identified by the Director -General	MOP	Noted: MOP for Rocglen Coal Mine prepared for the period November 2015 to October 2020. ERM understands a Closure MOP is currently being prepared.	C	



No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>ENVIRONMENTAL MANAGEMENT REPORTING</b>					
4	The lease holder must lodge Environmental Management Reports (EMR) with the Director-General annually or at dates otherwise directed by the Director-General.	Annual Reviews 2016 and 2017	AEMR for audit period cover ML 1620, MPL 1662 & PA 10_0015 and is distributed to: · Environment Protection Authority · Department of Planning and Environment · NSW Trade and Investment - Division of Resources and Energy · NSW Trade and Investment - Department of Primary Industries · NSW Office of Water · Gunnedah Shire Council · Rocglen Coal Mine Community Consultative Committee	C	
5	The EMR must: a) report against compliance with the MOP; b) report on progress in respect of rehabilitation completion criteria; c) report on the extent of compliance with regulatory requirements; and d) have regard to any relevant guidelines adopted by the Director-General;	Annual Reviews 2016 and 2017	ARs reviewed for reporting period, report against stated criteria	C	
6	Additional environmental reports may be required on specific surface disturbing operations or environmental incidents from time to time as directed in writing by the Director-General and must be lodged as instructed.	Annual Reviews 2016 and 2017	No additional or specific changes to disturbing operations outside of agreed limit of disturbance within the audit period.	NT	
<b>Rehabilitation</b>					
7	Disturbed land must be rehabilitated to a sustainable/agreed end land use to the satisfaction of the Director -General	Rehabilitation Management Plan	Rehabilitation plan approved as part of the MOP and land form and rehabilitation planting completed in line with management plan. However planting of bush and pasture has failed, reportedly due to adverse weather. Currently in year 8 of 11 End of Mine Life.	C	

No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Subsidence Management</b>					
8	(a) The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.	NT	No underground operations	NT	
	(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or mini walls, associated first workings (gate roads, installation roads and associated main headings, etc.), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17)				
	(c) The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process - Transitional Provisions (EDP09).				
	(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.				
	(e) Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.				
<b>Working Requirement</b>					
9	The lease holder must:	Interview Graduate Environment Officer	Rocglen employ 40 staff over two shifts, 7am - 5pm and 5pm - 2.30am five days a week.	C	
	(a) ensure that at least fifteen (15) competent people are efficiently employed on the lease area on each week day except Sunday or any week day that is a public holiday,				
	OR				
	(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than \$262,500 per annum whilst the lease is in force.				
	The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.				
<b>Control of Operations</b>					
10	(a) If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:-	ML1620	Noted	Note	
	(i) cease working the lease; or				
	(ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.				
	(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction				
	(c) A direction referred to in this condition may be served on the Mine Manager.				



No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Reports</b>					
11	The lease holder must provide an exploration report, within a period of twenty-eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following:	Interview Mine Operations Manager	Beyond the exploration period.	NT	
	(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;				
	(b) Details of expenditure incurred in conducting that exploration;				
	(c) A summary of all geological findings acquired through mining or development evaluation activities;				
	(d) Particulars of exploration proposed to be conducted in the next twelve months period;				
	(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report				
<b>Licence to Use Reports</b>					
12	(a) The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright	ML1620	Noted	Note	
	(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.				
<b>Confidentiality</b>					
13	(a) All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where:	ML1620	Noted	Note	
	(i) the lease holder has agreed that specified reports may be made non-confidential.				
	(ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.				
	(b) Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.				
	(c) The Director-General may extend the period of confidentiality.				
<b>Terms of non-exclusive licence</b>					
14	The terms of the non-exclusive copyright licence granted under condition 12 are:	ML1620	Noted	Note	
	(a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.				
	(b) the Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database.				
	(c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.				
	(d) there is no royalty payable by the Minister for the licence.				
	(e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months' notice.				

No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Blasting</b>					
a	Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 Mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Climate Change.	Environmental Blast Monitoring spreadsheet 2016-2018	Auditor sighted Blast Monitoring Spreadsheet for the audit period and no exceedance identified.	C	
b	Blast Overpressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Climate Change.	WHC response to DP&E Shao Cause 6 July 2016 EPL Licence variation 4 Sept 2017	WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.	NC Duplicated with MCoA 3.5 and EPL L5.1	
		Blast Monitoring spreadsheet 2016-2018	The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period. No overpressure levels recorded as exceeding 120dB (Lin Peak) during the audit period.		
<b>Safety</b>					
16	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director -General.	Interview Graduate Environment Officer	No shafts located on Site. The site is an open cut design. Site is fenced to prevent stock ingress on to the Site. The Site has an H&S management system at a group level which captures group policies and standards. Safe operation procedures and safe work method statements at Site level through risk assessment or consultation. Safety documentation has not been assessed as part of this inspection.	C	
<b>Exploratory Drilling</b>					
17a	At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Water and Energy Regional Hydrologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes	Interview Mine Operations Manager	Beyond the exploration period.	NT	



No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
17b	<p>If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(i) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>(ii) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(iii) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwater;</p> <p>(iv) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p> <p>(v) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(vi) once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director -General</p> <p>(vii) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>	Interview Mine Operations Manager	Beyond the exploration period.	NT	
<b>Prevention of Soil Erosion and Pollution</b>					
18	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwater. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Conditions of Approval	Refer Conditions of Approval assessment.	Note	
<b>Transmission lines, Communication lines and Pipelines</b>					
19	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Interview Mine Operations Manager	No transmission line, communication line, pipeline or any other utility identified within lease area.	NT	
<b>Fences, Gates</b>					
20	(a) Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.	Interview Mine Operations Manager	Rocglen is the lease and land holder.	NT	
	(b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.				

No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Roads and Trucks</b>					
21	(a) Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director - General and subject to any conditions he may stipulate.	MOP	Mine trucks are restricted to the haul road in accordance with the MOP.	C	
		Interview Mine Operations Manager	Shared service and cost with two mines using haul road.		
	(b) The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.				
22	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Environment and Climate Change	Interview Mine Operations Manager	Ring road on the pit crest included in the rehabilitation plan.	C	
<b>Trees and Timber</b>					
23	(a) The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.	Interview Mine Operations Manager	Rocglen is the lease and land holder.	C	
	(b) The lease holder must not cut, destroy, ring bark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Act 2003.		No remnant vegetation / tree felling occurred in the last three years outside the mine lease area.		
	(c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.		Auditor sighted Land Disturbance Protocol for clearance of trees within the Mining Lease area.		
<b>Resource Recovery</b>					
25a	Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered; he may give notice in writing to the lease holder requiring the holder to recover such minerals.	ML1620	Noted	Note	
25b	The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.	ML1620	Noted	Note	
25c	The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.	ML1620	Noted	Note	
25d	The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.	ML1620	Noted	Note	



No	Assessment Requirement	Reference/ Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
25e	The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.	ML1620	Noted	Note	
25f	After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.	ML1620	Noted	Note	
<b>Indemnity</b>					
26	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.	Note	Noted	Note	
<b>Security</b>					
27a	A security in the sum of \$100,000 must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under this lease. If the lease holder fails to fulfil any one or more of such obligations the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of this lease if the lease holder fails to comply with any condition or provision hereof. Any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder	MOP	maximum aggregate sum of 5,751,000 shown in draft deed documentation.	O (Compliant)	Provide Final authorised evidence of payment of Deed security deposit
27b	The lease holder must provide the security required by sub-clause (a) in one of the following forms:	ML1620	Noted	Note	
	(i) cash,				
	(ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.				

## **Mining Lease 1662**

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Environmental Incident Report</b>					
5	The lease holder must report any environmental incidents. The report must: (i) be prepared according to any relevant Departmental guidelines; (ii) be submitted within 24 hours of the environmental incident occurring	Blast Monitoring spreadsheet 2016-2018	The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period. No overpressure levels recorded as exceeding 120dB (Lin Peak) during the audit period.	C	
<b>Single Security (extended)</b>					
21	The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under Mining Lease No. 1620 (Act 1992) is extended to apply to this lease	ML1620	Noted	Note	
<b>Cooperation Agreement</b>					
24	The lease holder must make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s).	Interview Mine Operations Manager	ML1662 and ML1620 land is owned by WHC.	C	

## **Environmental Protection Licence**

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>ADMINISTRATIVE CONDITIONS</b>					
<b>A1 What the licence authorises and regulates</b>					
A1.1	<p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <p>Coal Works 0 - 2000000 T handled</p> <p>Mining for Coal &gt;500000 T - 2000000 T produced</p>	<p>Interview - Graduate Environment Officer</p> <p>Annual Reviews 2016 - 2018 (draft data for 2018)</p> <p>Coal Movement Records</p>	<p>Volume of extraction of coal confirmed through survey of the site - reports issued to Mine Manager.</p> <p>2016: 1,259,744 Tonnes</p> <p>2017: 1,387,519 Tonnes</p> <p>2018: 1,206,300 Tonnes</p> <p>2019 (January): 93,834 Tonnes</p>	C	
<b>A2 Premises or plant to which this licence applies</b>					
A2.1	<p>The licence applies to the following premises:</p> <p>ROCGLLEN COAL MINE</p> <p>WEAN Road</p> <p>GUNNEDAH</p> <p>NSW 2380</p>	<p>Independent environmental audit</p> <p>Site Inspection</p>	<p>Site was inspected. Works and activities carried out in accordance with EPL.</p>	C	
<b>A3 Information supplied to the EPA</b>					
A3.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <p>(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</p> <p>(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</p>	<p>Independent environmental audit</p> <p>Site Inspection</p>	<p>Works and activities generally carried out in accordance with the EPL, though non-compliances were identified as described throughout this table.</p>	NC	As outlined against non-compliances and observations below
<b>2 Discharges to Air and Water and Applications to Land</b>					
<b>P1 Location of monitoring/discharge points and areas</b>					
P1.1	<p>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point</p>	<p>Environmental officer interview.</p> <p>ROC-EPL Monitoring September 2018</p>	<p>Short run of Roseberry HVAS B2 (EPL licence point 10) in 4 September 2018.</p>	NC	Ensure HVAS monitoring continues at required frequency and duration.
P1.2	<p>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p>	<p>ES1729370_0_COA</p> <p>2017_11_event report-water discharge-EP</p> <p>Environmental officer interview</p> <p>Rocglen Wet Weather Discharge Data</p>	<p>No uncontrolled discharge occurred in 2018 or 2019 at time of audit.</p> <p>Only one uncontrolled discharge in 20 November 2017. Rocglen Water Discharge - notified EPA and DPE 24 November 2017 and later notified both parties that the discharge event was not classified as an incident given there had been over 38.4mm rain. The discharging runoff was sampled and was above criteria but event was above</p>	C	
P1.3	<p>The following point(s) in the table are identified in this licence for the purpose of the monitoring of weather parameters at the point.</p>	EPL	<p>Weather station has been relocated to site from 'Costa Vale'. EPL demonstrates variation that was undertaken</p>	C	
<b>3 LIMIT CONDITIONS</b>					
<b>L1 Pollution of Waters</b>					
L1.1	<p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with Section 120 of the Protection of the Environment Operations Act 1997.</p>	<p>Water Management Plan</p> <p>Rocglen Wet Weather Discharge Data spreadsheet</p>	<p>Discharges were all compliant. Overflow was during greater than design capacity storm event.</p>	C	
<b>L2 Concentration Limits</b>					

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
L2.1	For each monitoring/discharge point or utilisation area specified in the table\ below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	ES1729370_0_COA 2017_11_event report- water discharge-EP Environmental officer interview	Controlled discharges were compliant, as was overflow event on 20 November 2017 as design rainfall event had been exceeded.	C	
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Roglen Wet Weather Discharge Data spreadsheet	No records outside criteria observed upon review of spreadsheet.	C	
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\ s.	Note	Noted	Note	
L2.4	Table: Water and/or Land Concentration Limits  Refer Point 11 and 12 in EPL.  Oil and Grease - 10 mg/l pH - 6.5 - 8.5 TSS - 50 mg/l	Roglen Wet Weather Discharge Data spreadsheet	Noted - refer L2.1 (Table)	Note	
<b>L3 Waste</b>					
L3.1	Reject material from the Whitehaven CHPP can be disposed of at the premises in accordance with the Project Approval 10_0015 as modified.	Annual Reviews	Volume of rejects tracked by Logistics Manager and included in the annual reviews. The site does not receive rejects above the limit.  1/8 /2015 - 31/12 2016: 683,193 tonnes 2017: 135,256 tonnes 2018: 171,179 tonnes 2019 (January): 32,983 tonnes	C	
<b>L4 Noise Limits</b>					
L4.1	Noise generated at the premises must not exceed the noise limits in the table below.	AEMR 2016 and 2017	Roglen Coal Mine Annual Reviews for 2016 and 2017 identified one noise exceedance during the 2016 reporting period (1st August 2016 to 31st December 2016), and three exceedances during the 2017 reporting period (1st January 2017 to 31st December 2017). All exceedances were recorded at the Surrey property.	NC	Continue monitoring as per requirements - exceedances were predominately at night. Nightworks will likely cease upon completion of mining activities in very near future (mid 2019) and works will focus rehabilitation to be undertaken during daytime period only
L4.2	The noise limits identified in the above table do not apply at privately owned residences that are:  a) identified as residences subject to acquisition or noise mitigation on request within the Project Approval; or  b) subject to a private agreement, relating to the noise levels, between the licensee and the land owner.	EPL	Noted: "Roseberry" is subject to a private agreement that enables noise levels up to 40 dB(A).	Note	
L4.3	For the purpose of the table above:  a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays;  b) Evening is defined as the period from 6pm to 10pm;  c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.	EPL	Noted	Note	
	To determine compliance:	Site Inspection	The Noise Management Plan states noise monitoring locations are at "Retreat" and "Surrey".		

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
L4.4	<p>a) with the Leq(15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</p> <p>ii) within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable</p> <p>iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve.</p> <p>b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade.</p> <p>c) with the noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) at the most affected point at a location where there is no dwelling at the location; or</p> <p>ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition.</p>	Monitoring Results	<p>"Retreat" and "Surrey" monitoring points are located north and southeast of operations and therefore within wind directions characteristic of the area. The landholders of both properties have provided consent to the undertaking of noise monitoring at their properties.</p> <p>The location of the real time monitor has been established in consultation with EPA, on the basis that it can be relocated on an as needs basis based on prevailing weather conditions, community complaints/concerns and operations at site so as RCM has capacity to effectively measure noise levels at the most likely affected receiver.</p>	C	
L4.5	<p>The noise limits set out in the Noise Limits table apply under all meteorological conditions except for the following:</p> <p>a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or</p> <p>b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or</p> <p>c) Stability category G temperature inversion conditions.</p> <p>For the purposes of this condition:</p> <p>a) Data recorded by the meteorological station identified as EPA Identification Point(s) W1 must be used to determine meteorological conditions; and</p> <p>b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.</p>	WHC_PLN_ROC Noise Management Plan	<p>Exceptions to conditions noted in WHC_PLN_ROC Noise Management Plan</p> <p>Weather conditions recorded by Meteorological Station</p>	C	
L4.6	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment	WHC_PLN_ROC Noise Management Plan	Statement in Section 3.1 details that attended noise monitoring will expressly monitor the modification factors.	C	
L4.7	<p>The noise limits set by this licence do not apply where a current legally binding agreement exists between the licensee and the occupant of a residential property that:</p> <p>a) agrees to an alternative noise limit for that property; or</p> <p>b) provides an alternative means of compensation to address noise impacts from the premises.</p> <p>A copy of any agreement must be provided to the EPA before the licensee can take advantage of the agreement.</p>	<p>Interview with Graduate Environmental Officer</p> <p>WHC_PLN_ROC Noise Management Plan</p>	"Roseberry" is subject to a private agreement that enables noise levels above 35 dB(A).	C	
<b>L5 Blasting</b>					
L5.1	The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has	WHC response to DP&E Show Cause 6 July 2016	<p>WHC received a Show Cause on 5th July 2016 in relation to a non-compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.</p>	NC Duplicated with MCoA 3.5 and ML1620 (15(b))	No further action required



No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
	been exceeded	EPL Licence variation 4 September 2017			
L5.2	The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Blast Monitoring spreadsheet 2016-2018	The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period. No overpressure levels recorded as exceeding 120dB (Lin Peak) during the audit period.	C	
L5.3	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Annual Reviews and Blast Monitoring Spreadsheet	All blasts were monitored using a combination of portable and permanent blast monitors and remained within the compliance criteria specified for the period 2016-2019. The maximum recorded ground vibration during the reporting period was 1.27 mm/s recorded at "Surrey".	C	
L5.4	Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.	Annual Reviews and Blast Monitoring Spreadsheet	Refer condition L5.3  No recorded ground vibration exceeded 10mm/sec.	C	

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>4 OPERATING CONDITIONS</b>					
<b>O1 Activities must be carried out in a competent manner</b>					
O1.1	<p>Licensed activities must be carried out in a competent manner.</p> <p>This includes:</p> <p>(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	Site Inspection	<p>Diesel for refuelling is stored in double skinned tank in the maintenance workshop area. Refuelling area is sealed with concrete and contains a small rollover bund.</p> <p>Waste oils and associated materials stored in bins and drums in the maintenance area which is sealed and drains to an oil water separator system.</p>	C  C	
<b>O2 Maintenance of plant and equipment</b>					
O2.1	<p>All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>(a) must be maintained in a proper and efficient condition; and</p> <p>(b) must be operated in a proper and efficient manner.</p>	<p>Interview - Maintenance Manager</p> <p>Weekly Scheduling</p>	<p>Mine equipment is inspected daily as part of prestart. Weekly scheduling sighted and prestart checklists sighted includes details of checks required. Any defects are managed through "Pulse" program. The weekly scheduling document is tracked through Excel spreadsheet which is appropriate to the scale of maintenance undertaken by Whitehaven Coal.</p> <p>Contractors maintain own equipment. Transport of coal is completed by BIS Industries which operate Qube under the National Heavy Vehicle Accreditation Scheme which requires a daily check for roadworthiness which are carried in the vehicle.</p>	C	

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>O3 Dust</b>					
O3.1	All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	Environmental Officer Interview Air Quality and Greenhouse Gas Management Plan Annual Review 2018 EC Rework_Draft (evidence of review of AQ data and determination of whether mine related or not. Rocglen Monitoring Points.xls Reworked HVAS Spreadsheet Rocglen PM10 HVAS Data Dust monitor Audit 20150220.pdf (specific to DPE additional investigation item) Sentinex daily dust monitoring summary from TEOM (SX99 - G3-dustmetchart-20190219.pdf) - Includes wind speed, direction and rainfall (as well as PM10)	Annual average limit for deposited dust was exceeded at two locations (one was WHC owned land - 'Belah', an unoccupied property) and privately owned 'Penryn'. Investigation identified that these events were unlikely to be mine related given that predominant wind directions were not from the mine to the direction of the gauges. Costa vale HVAS (non-EPL related sampler) demonstrated five exceedances in 2018 but investigation revealed that none were due to mine activity based on prevailing wind direction not being towards monitors, regional dust storm events or when mine was not operating. Four exceedances at Costa Vale in 2017. The exceedances occurred on a Sunday when the mine was not operating and the remaining three events were deemed not mine related due to the prevailing wind conditions. Roseberry demonstrated one exceedance in 2018 and was due to regional dust event. No exceedance at Roseberry in 2017. No exceedances identified for either TEOM is only used for management - alarms sent to relevant staff. Update to AQMP in 2018 clearly stated that the TEOM is for management only. Audit on 20 February 2015 demonstrates assessment into clearance from structures, 10m from tree dripline, unrestricted air flow around inlet and >5m from source. BD3 and BD8 had items to be addressed in terms of siting. Height of gauge also assessed. BD7 outside of margin for error of 0.2m. Environmental officer did not know whether items raised were addressed as it was prior to her tenure. Co-ordinates of deposited dust gauges, TEOM and HVAS's were provided in Rocglen Monitoring Points spreadsheet. 24 hour averages of TEOMs are provided by email but not recorded within a tracking spreadsheet (the TEOM is used as a management tool only). The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM10 criteria is reached so that actions can be completed immediately.	C	
O3.2	Trucks transporting coal from the premises must be covered immediately after loading to prevent wind-blown emissions and spillage. The covering must be maintained until immediately before unloading the trucks.	Site Inspection	Coal truck loading observed - covered immediately. No truck unloading observed. All trucks noted on road to have tarpaulins in place.	C	

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>O4 Other operating conditions</b>					
<b>Blast Fume</b>					
O4.1	<p>Offensive blast fume must not be emitted from the premises.</p> <p>Definition: Offensive blast fume means post-blast gases (whether visible or invisible, odorous or odourless) from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:</p> <p>(i) are harmful to (or is likely to be harmful to) a person that is outside the premises from which it is emitted, or</p> <p>(ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.</p>	<p>Monitoring Results</p> <p>Annual Reviews</p> <p>Correspondence with EPA; 4 November 2016, 17 November 2016, 17 July 2017.</p> <p>WHC response to DP&amp;E Shao Cause 6 July 2016</p> <p>EPL Licence variation 4 Sept 2017</p>	<p>2016: RCM did not exceed the blasting criteria for any blast during the reporting period. There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPI, EPA and DP&amp;E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast. Following submission of the required information, WHC received a second Notice to Provide Information on the 4th November 2016, with submission of the further requests made on the 17th November 2016. On 17 July 2017 further notice to provide information by the EPA.</p> <p>In addition, WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry". WHC considered compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Roseberry to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.</p> <p>The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period.</p>	NC (duplicate CoA 3.5)	<p>Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fume event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions..</p>
<b>Pollution Incident Response Management Plan</b>					
O4.2	<p>The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The PIRMP must document systems and procedures to deal with all types of incidents (e.g. spills, explosions, fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.</p>	<p>Rocglen PIRMP test 2017</p> <p>PIRMP Register</p>	<p>PIRMP test on 3 August 2017 was actual incident in which 40L of diesel was lost.</p> <p>27 July 2018 wet weather discharge was the test.</p> <p>Signed statement of compliance document (31 July 2016 - 30 July 2017)</p> <p>All tests have been actual incidents.</p>	O (compliant)	<p>Undertake test in accordance with PIRMP guidelines rather than incident occurring and forming the test.</p>
O4.3	<p>The licensee must keep the PIRMP on the premises at all times.</p>	<p>Site Inspection</p> <p>Whitehaven website</p>	<p>Hard copy in Crib room observed and plan was provided upon request by Environmental officer</p> <p>Plan was also available online</p>	C	



No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>5 MONITORING AND RECORDING CONDITIONS</b>					
<b>M1 Monitoring Records</b>					
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Monitoring Records  Website	Records are kept in excel files. Monthly monitoring reports also uploaded to Rocglen website.	C	
M1.2	All records required to be kept by this licence must be:  (a) in a legible form, or in a form that can readily be reduced to a legible form;  (b) kept for at least 4 years after the monitoring or event to which they relate took place; and  (c) produced in a legible form to any authorised officer of the EPA who asks to see them.	as above	as above	C	
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence:  (a) the date(s) on which the sample was taken;  (b) the time(s) at which the sample was collected;  (c) the point at which the sample was taken; and  (d) the name of the person who collected the sample.	Water Quality monitoring results - as shown in AEMRs	Date, time and point of sampling included in Excel spreadsheet.  The sampler name is not included.	O (compliant)	Consider including the name of the sampler into the water monitoring excel sheet.
<b>M2 Requirement to monitor concentration of pollutants discharged</b>					
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:		Continuous weather monitoring not achieved due to communication issues, planned and unplanned maintenance and blockage of rain gauge by insects during reporting period	O (compliant)	Weatherstation has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.
M2.2	Air Monitoring Requirements  Point 4,6 - dust  Point 10 - PM10 (HVAS)  Point 17 - PM10 (real time)		Continuous weather monitoring not achieved due to communication issues, planned and unplanned maintenance and blockage of rain gauge by insects during reporting period	O (compliant)	Weatherstation has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
M2.3	Water and/ or Land Monitoring Requirements  Point 11,12 - conductivity, oil and grease, pH, TOC, TSS  Point 13, 14, 15 - conductivity, oil and grease, pH, TOC, TSS  Point 16 - Annually (Al, As, HCO <sub>3</sub> , Cl, Na, Fe, Mn) and quarterly (conductivity, oil and grease, pH, , TOC, TSS)	interview with site environmental officer  Inspection of Water quality monitoring spreadsheet and AEMRs	Monitoring completed as required by this condition.	C	
M2.4	For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.		During the wet weather discharge event (20 November 2017), samples were collected as soon as practicable. RCM were unable to confirm the commencement time of the discharge. Stringent water management is employed on site, and additional control measures for utilisation in the event of a discharge are being investigated.	NC	Implement any additional mitigation measures to allow for less than 12 hour response time
M2.5	For the purposes of the table(s) above Special Frequency 2 means the collection of samples quarterly (in the event of a flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.	AEMR 2017	As above	NC	As above
M2.6	At Monitoring Point 16, monitoring is not required when the monitoring site is dry or inadequate water is available to collect a sample.		Noted	Note	
Note	Groundwater monitoring is not included in the EPL as this is addressed in the Department of Planning and Environments' project approvals. Groundwater monitoring must be undertaken in accordance with the currently approved water management plan.		Noted	Note	
<b>M3 Testing Methods - concentration limits</b>					
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or  c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW	Monitoring of dust is done in accordance with AM-19 (DDGs), AM-18 (HVAS) and AM-22 (TEOM), which are all approved methods.	C	
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Annual Return  Email - RE: Water Quality Monitoring Alternative Methods - Approval Submission (approval of methods used for WQ sampling that were alternatives to the approved methods publication.	Annual return identified methods used for analysing the concentration of pollutants discharged to a utilisation area were not all in accordance with the Approved Methods Publication and had not been approved in writing by the EPA before tests conducted. ALS were using updated methods for analysis that were not approved by the EPA at the time. The non-compliance was observed across all Whitehaven sites sampled by ALS. Approval for the updated methods used by ALS have been approved by NSW EPA as demonstrated in RE: Water Quality Monitoring Alternative Methods - Approval Submission.	ANC	No further action required.

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>M4 Weather Monitoring</b>					
M4.1	For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.	Non compliance detail on EPL website	Continuous weather monitoring not achieved due to communication issues, planned and unplanned maintenance and blockage of rain gauge by insects during reporting period	O (Compliant)	Weather station has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.
M4.2	The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in this section.	Interview with Environmental officer Sentinex archive of maintenance records	Novercom undertakes 6 monthly maintenance of the weather station. While the weather station was maintained as required, continuous monitoring was not achieved due to the issues outlined above.	O (Compliant)	Weather station has been moved to avoid issues. Continue to monitor and determine additional mitigation as required to prevent breaks in continuity.
<b>M5 Recording of pollution complaints</b>					
M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Website	Complaints are kept on website - all records are available	C	
M5.2	The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made;  (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;  (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.	2018 Complaints register	Review of complaints on website indicates all details are maintained with exception of name of complainant due to privacy. Complainant details are recorded separately on an offline report.	C	
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Complaints Register on Website	Complaints area available for life of project (since 2008)	C	
M4.4	The record must be produced to any authorised officer of the EPA who asks to see them.	Environmental officer interview.	No requests for data made during audit period. Results available on website.	C	
<b>M6 Telephone complaints line</b>					
M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	<a href="http://www.whitehavennews.com.au/rocglen-mine/">http://www.whitehavennews.com.au/rocglen-mine/</a>	Website lists phone number 0428 114 814.  Tested number - goes directly to Rocglen Graduate Environment Officer.	C	

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Interview Graduate Environment Officer	Complaints line number is provided on website.  Roglen Mine. Community Consultation Committee meeting minutes reminded community members that Whitehaven Coal can be contacted at any time if there are any concerns so these can be acted upon in a timely manner.	C	
M6.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.	Note	Noted	Note	
<b>M7 Blasting</b>					
M7.1	To determine compliance with condition(s) L5.1, L5.2, L5.3 and L5.4: a) Airblast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out in or on the premises and electronically recorded at points BB1 and BB3. b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.	Environmental Monitoring Spreadsheet	Blast monitoring is completed at locations.  Instrumentation meets requirements of Australian Standard AS 2187.2-2006.	C	
M7.2	For the purpose of condition M7.1, the blasting monitoring locations are described as:  BB1 (Retreat) and BB3 (Surrey)	Dynamaster online records were observed		C	
<b>M8 Other monitoring and recording conditions</b>					
<b>Noise Monitoring</b>					
M8.1	For each monitoring point specified below, the Licensee must monitor the noise or vibration parameter specified in Column 1. The Licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.  Points N1 and N2 - ambient noise using Type 1 noise meter	Reports issued by Spectrum Acoustics	Attended noise monitoring was conducted with Brüel & Kjær Type 2250 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters" and have current NATA calibration.	C	
M8.2	For the purpose of condition M8.1, the noise monitoring locations are described as: N1 - Property 'Retreat' N2 - Property 'Surrey' N3 - Portable Monitor  Note: Point N3 is a portable monitor enabling the monitor to be relocated to areas of potential greatest impact. The licensee is responsible to ensure that it is located at the most suitable location. Note: The location, frequency of monitoring and the parameters to be monitored may be varied by the EPA once the variability of the noise impact is established.	Reports issued by Spectrum Acoustics  AEMR 2016 - 2017  Roglen Monitoring Points.xls	Monitoring locations align with licence and reports identify frequency that aligns with the licence.	C	
M8.3	To assess compliance with the noise limits presented in the Noise Limits table, attended noise monitoring must be undertaken in accordance with the condition titled Determining Compliance, outlined above, and: a) at each one of the monitoring locations N1 and N2; b) occur quarterly in a reporting period; c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of: i) 1.5 hours during the day; ii) 30 minutes during the evening; and iii) 1 hour during the night. d) occur for three consecutive operating days.	WHC_PLN_ROC Noise Management Plan  AEMR 2016 - 2017	Noise Monitoring Plan outlines monitoring procedure in accordance with the licence. Annual reports demonstrate monitoring at frequency required.	C	



No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>6 REPORTING CONDITIONS</b>					
<b>R1 Annual return documents</b>					
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> <li>1. a Statement of Compliance,</li> <li>2. a Monitoring and Complaints Summary,</li> <li>3. a Statement of Compliance - Licence Conditions,</li> <li>4. a Statement of Compliance - Load based Fee,</li> <li>5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,</li> <li>6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and</li> <li>7. a Statement of Compliance - Environmental Management Systems and Practices.</li> </ol> <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	<p>Annual Returns</p> <p>EPA EPL website (http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=12870&amp;id=12870&amp;option=licence&amp;searchrange=licence&amp;range=POEO licence&amp;prp=no&amp;status=Issued)</p>	<p>EPA website indicates all returns completed for each reporting period, these were reviewed during Site inspection.</p> <p>Statement of compliance and monitoring and complaints summary are detailed in each of the Annual Returns during the audit period.</p>	C	
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	<p>Annual Returns</p> <p>EPA EPL website (http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=12870&amp;id=12870&amp;option=licence&amp;searchrange=licence&amp;range=POEO licence&amp;prp=no&amp;status=Issued)</p>	EPA website indicates all returns completed for each reporting period.	C	
R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <ol style="list-style-type: none"> <li>(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</li> <li>(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</li> </ol>	EPL Variations	<p>Licence holder is Whitehaven Coal. Transfer of the EPL to new licensee not completed during the audit period.</p>	NT	
R1.4	<p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <ol style="list-style-type: none"> <li>(a) in relation to the surrender of a licence – the date when notice in writing of approval of the surrender is given; or</li> <li>(b) in relation to the revocation of the licence – the date from which notice revoking the licence operates.</li> </ol>	EPL Variations	EPL remains current	NT	
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	EPA EPL website	The EPA website indicates all returns completed within 60 days of end of reporting period.	C	
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	EPL annual returns for audit period	Electronic copies of annual returns are retained on share drive as reviewed on site	C	
R1.7	<p>Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <ol style="list-style-type: none"> <li>(a) the licence holder; or</li> <li>(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</li> </ol>	25/09/'2018 - Annual return observed with director signatures.	25/09/'2018 - Annual return observed with director signatures. EPA had published non-compliances online that would have been received from signed annual returns	C	

No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>R2 Notification of environmental harm</b>					
R2.1	<p>Notifications must be made by telephoning the Environment Line service on 131 555.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>		Blast fume incident that was reported to the NSW EPA was stated to be in accordance with the PIRMP but did not detail	O (compliant)	Consider adding the time of notification to the Environment Line as well as the Notification number to the written reports (and incidents register if not already included).
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.		the blast fume incident was followed up with a report within 7 days of the event occurring.	C	
<b>R3 Written report</b>					
R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <p>(a) where this licence applies to premises, an event has occurred at the premises; or</p> <p>(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.</p>	Interview with Environmental Officer.	All requests from the EPA have been related to self reported incidents, and the EPA have wanted further information. No request outside of self reported incidents.	NT	
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Interview with Environmental Officer.	All requests from the EPA have been related to self reported incidents, and the EPA have wanted further information. No request outside of self reported incidents.	NT	
R3.3	<p>The request may require a report which includes any or all of the following information:</p> <p>(a) the cause, time and duration of the event;</p> <p>(b) the type, volume and concentration of every pollutant discharged as a result of the event;</p> <p>(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;</p> <p>(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;</p> <p>(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;</p> <p>(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and</p> <p>(g) any other relevant matters.</p>	Interview with Environmental Officer.	All requests from the EPA have been related to self reported incidents, and the EPA have wanted further information. No request outside of self reported incidents.	NT	
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Interview with Environmental Officer.	All requests from the EPA have been related to self reported incidents, and the EPA have wanted further information. No request outside of self reported incidents.	NT	



No	Assessment Requirement	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>R4 Other reporting conditions</b>					
R4.1	The licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.		2016: RCM did not exceed the blasting criteria for any blast during the reporting period. There was one incident of blast fume leaving the mine site which occurred on the 10th August 2016. Notification was made as per the Pollution Incident Response Management Plan (PIRMP) following the event, with a detailed report provided to DPL, EPA and DP&E on the 17th August 2016. On the 25th August WHC received a Notice to Provide Information requesting further information on the blast. Following submission of the required information, WHC received a second Notice to Provide Information on the 4th November 2016, with submission of the further requests made on the 17th November 2016. On 17 July 2017 further notice to provide information by the EPA.  In addition, WHC received a Show Cause on 5th July 2016 in relation to a non compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 "Roseberry" WHC consider	C	
R4.2	A noise compliance assessment report must be submitted to the EPA within thirty (30) days of the completion of the quarterly noise monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:  a) an assessment of compliance with noise limits detailed in the limit conditions of this licence; and  b) an outline of any management actions taken within the monitoring period to address any exceedance of the limits detailed in the limit conditions of this licence.	email - Rocglen coal mine quarterly monitoring Report  email - Rocglen Coal Mine Q3 Attended Noise Monitoring Report	Emails demonstrates that the reports were sent to the EPA	C	
<b>7 General conditions</b>					
<b>G1 Copy of licence kept at premises or plant</b>					
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Site inspection	Observed during Site inspection	C	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Interview of Environmental Officer	No EPA officers visited site during audit period	NT	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	EPL 12870	Noted	Note	

## **Water Access Licence 36758**



No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
MW0716-00001	The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to:	Interview with Graduate Environmental Officer AEMR 2016 and 2017	Annual water allocation is 700ML	C	
	(A) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus	Water Balance	Water balance identified the groundwater inflow into the pit. 2017 - pit inflow was 56.3ML. 2018 pit inflow was 45.7ML - well below criteria		
	(B) the water allocations carried over from the water year prior to that water year; plus				
	(C) the net amount of any water allocations assigned to or from the water allocation account for this licence under section 71T of the Act; plus				
	(D) any water allocations re-credited to the water allocation account for this licence in accordance with section 76 of the Act in that water year.				
MW0631-00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.		Noted	Noted	
<b>Monitoring and recording</b>					
MW0635-00001	The licence holder must record the following in the logbook:				
	(vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.		The water 'taken' is that which inflows from the aquifer and can only be estimated by water balance modelling. The total volumes are recorded each year and stated in the AEMR.	C	
MW0639-00001	When directed by the Minister by notice in writing, the licence holder of an access licence that nominates only a metered water supply work with a data logger must keep a logbook in accordance with any requirements that are specified in the notice.		The water 'taken' is that which inflows from the aquifer and can only be estimated by water balance modelling. The total volumes are recorded each year and stated in the AEMR. The flow cannot be metered, thus a logbook (with typical recording requirements) as stated in MW06333-00001 cannot be met.	NT	
MW0633-00001	The licence holder must record the following in the logbook: (i) each date and period of time during which water is taken under this licence; (ii) the volume of water taken on that date; (iii) the water supply work approval number of the water supply work used to take the water on that date; (iv) the purpose or purposes for which the water taken on that date.		As above	ANC	



No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.		Logbook has not been requested for inspection by the Minister during the audit period.	NT	
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.		As per MW0639-00001. The volume of 'take' by groundwater infiltration can e estimated by water balance modelling but cannot be metered.	NT	
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.		As per MW0639-00001. The volume of 'take' by groundwater infiltration can e estimated by water balance modelling but cannot be metered. Volume of infiltration can be kept for 5 years.	ANC	Volume of infiltration can be kept for 5 years.
<b>Reporting</b>					
MW0831-00001	The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence. Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.	Interview with Graduate Environmental Officer Review of AEMR 2016 and 2017	No anecdotal or document evidence of breach identified from interview with Graduate Environmental Officer or review of AEMRs	NT	
<b>Additional conditions</b>					
MW0717-00001	The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either:	AEMR 2016 and 2017.	AEMRs identified that water allocation has not been exceeded in any years during the reporting period.	NT	
	(A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or				
	(B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.				

## **Water Access Licence 29461**



No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Take of water</b>					
MW0716-00001	The maximum volume of water that may be taken under this licence in any water year must not exceed a volume equal to:				
	(A) the sum of water allocations accrued to the water allocation account for this licence from available water determinations in that year; plus		120 units is allocation (ML)		
	(B) the water allocations carried over from the water year prior to that water year; plus	water meter readings spreadsheet	Production bore take during the entire period was 20kL.	C	
	(C) the net amount of any water allocations assigned to or from the water allocation account for this licence under section 71T of the Act; plus	1471-01-D1 WB - Final			
	(D) any water allocations re-credited to the water allocation account for this licence in accordance with section 76 of the Act in that water year.				
MW0631-00001	Water must not be taken under this access licence otherwise than in compliance with the conditions of the nominated water supply work approval.		Noted.	Note	
<b>Monitoring and recording</b>					
MW0635-00001	The licence holder must record the following in the logbook:	water meter readings spreadsheet	The spreadsheet includes water pumped and the limit that can be taken is also demonstrated (120 units). Does not include the groundwater inflows as prepared by the water balance	ANC	Update spreadsheet to include groundwater inflow
	(vii) the volume of water taken in any water year from 1 July 2011, by comparison to the maximum volume of water permitted to be taken in that water year.				
MW0633-00001	The licence holder must record the following in the logbook:				
	(i) each date and period of time during which water is taken under this licence;	water meter readings spreadsheet	All items required are provided with the exception of 'purpose'. Environmental officer indicated that always for dust suppression.	ANC	Complete purpose of the spreadsheet.
	(ii) the volume of water taken on that date;				
	(iii) the water supply work approval number of the water supply work used to take the water on that date;				
	(iv) the purpose or purposes for which the water taken on that date.				
MW0639-00001	When directed by the Minister by notice in writing, the licence holder of an access licence that nominates only a metered water supply work with a data logger must keep a logbook in accordance with any requirements that are specified in the notice.	water meter readings spreadsheet	Logbook has not been requested for inspection by the Minister during the audit period.	NT	
MW0636-00001	The licence holder must produce the logbook to the Minister for inspection, when requested.	water meter readings spreadsheet	Logbook has not been requested for inspection by the Minister during the audit period.	NT	
MW0632-00001	The licence holder must keep a log book, except where the access licence nominates only a metered work with a data logger. A "logbook" means a written record, kept in hard copy or electronic form, which accurately records all information required to be kept for this licence.	water meter readings spreadsheet	Spreadsheet is not strictly in accordance with log book.	ANC	Consider amending the existing Water Meter Reading Excel spreadsheet to include all logbook requirements.
MW0637-00001	The licence holder must retain the information required to be recorded in the logbook for 5 years from the date to which that information relates.	Noted	Spreadsheet is not strictly in accordance with log book.	O (Non-compliant)	Consider including logbook requirements and record keeping requirements of the WAL into the Water Management Plan and retain for 5 years



No	Assessment Requirement	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Reporting</b>					
MW0831-00001	<p>The licence holder must notify the Minister, in writing, immediately upon becoming aware of a breach of any condition of this licence.</p> <p>Note: a notification does not authorise a breach, or continuing breach, of a condition of this licence.</p>	<p>AEMR 2016 - 2017</p> <p>Interview with Graduate Environmental Officer</p>	<p>Previous audit identified that the Minister was to be notified that a breach occurred due to logbook not being maintained. This notification took the form of including the non-compliance in the statement of compliance in the 2016 Annual review.</p> <p>Interview and AEMR review identified that no breach occurred during the audit period</p>	C	
<b>Additional Conditions</b>					
MW0717-00001	<p>The maximum water allocation that may be carried over in the water allocation account for this access licence from one water year to the next is either:</p> <p>(A) 25 % of the access licence share component for access licences with share components expressed as ML/year; or</p> <p>(B) 0.25 ML per unit share of access licence share component for access licences with share components expressed as a number of unit shares.</p>	<p>water meter readings spreadsheet</p>	<p>Water meter spreadsheet identified that water allocation has not been exceeded in any years during the reporting period.</p>	NT	
<b>Other Conditions</b>					
NIL					

## **Mining Operations Plan**

Commitment	Commitment Reference	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<p><b>Flora and Fauna</b></p> <p><b>General</b></p> <ul style="list-style-type: none"> <li>□ All efforts will be made to avoid disturbance of the vegetation communities within Rocglen and to maintain and enhance as much of the existing remnant vegetation on-site as possible.</li> <li>□ The minimal practicable amount of clearing will be undertaken as a general objective, particularly within those areas that currently contain identified threatened species or ecological communities.</li> <li>□ Weed control practices will be implemented to minimise the spread of exotic species.</li> <li>□ A tree felling protocol will be implemented in order to minimise harm to fauna species during clearing activities.</li> <li>□ Where possible, tree felling will be supervised by a suitably qualified and experienced ecologist.</li> <li>□ Where trees are to be removed an assessment of the surrounding level of tree hollow provision will be undertaken by a suitably qualified and experienced ecologist in order to determine the need for local supplementing of tree hollows (using salvaged tree hollows or nest boxes).</li> <li>□ Mature and hollow-bearing trees will be retained wherever feasible within the site.</li> <li>□ Vegetation to be removed will be clearly marked in the field using temporary fencing (flagging tape or similar) so that the boundaries are clearly established and to minimise the potential for equipment to accidentally enter areas to be retained.</li> <li>□ Regular monitoring of the vegetation within Rocglen will be undertaken in order to enable effective management with regards to rehabilitation (planting), regeneration, watering, fencing and weed control.</li> <li>□ Specialist ecologists will be engaged to conduct pre-clearing inspections for fauna impact mitigation, as required.</li> </ul>	<p>Section 3.2.5</p>	<p>Standard Clearing Protocol</p>	<p>A tree felling protocol "Standard Clearing Protocol" has been developed during the audit period.</p>	<p>C</p>	
<p><b>Weed Control</b></p> <ul style="list-style-type: none"> <li>□ Control practices implemented to minimise the spread of weed species will include:</li> <li>- Campaign weed spraying prior to the stripping of topsoil;</li> <li>- Equipment coming to site to be clean and free of soil/plant material prior to entry, or subject to clean down at the workshop facilities area;</li> <li>- Herbicide spraying or scalping weeds off topsoil stockpiles prior to re-spreading; and</li> <li>- Rehabilitation inspection to identify potential weed infestations.</li> </ul>	<p>Section 3.2.5</p>	<p>WHC_CHK Monthly Environmental Inspection Checklists</p>	<p>Monthly check for weeds in rehabilitated areas completed by Environment Officer.</p> <p>Site vehicles remain on internal roads. Weeds sprayed by contractor on campaign basis.</p>	<p>C</p>	
<p><b>Fauna Monitoring</b></p> <p>Fauna monitoring will continue to be undertaken at Rocglen and is currently completed annually by a qualified ecologist with results reported in the AEMR/Annual Review.</p>	<p>Section 3.2.5</p>	<p>AEMR 2016 and 2017 Mining Operations Plan</p>	<p>The Rehabilitation Management Plan includes detail on fauna monitoring with fauna monitoring to be undertaken biennially. Fauna monitoring plots were established during spring 2009 in areas adjacent to the site. Previous audit recommended aligning the RMP and EMSThe auditor understands monitoring has been completed and the closure MOP has been submitted to Resources Regulator. Change in monitoring locations and methodology will occur.</p>	<p>C</p>	

Commitment	Commitment Reference	Reference/evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Visual Amenity and Lighting</b>					
A vegetated earthen bund of appropriate height will be maintained between the realigned Wean Road and the active pit area to provide an effective visual screen from Wean Road. In addition, a strip of bushland will be maintained in the post-mining landform to screen the view of the final void and generally improve the visual amenity from Wean Road.	Section 3.2.9	Site Inspection Interview with Graduate Environmental Officer	Earthen bund has been partially installed along the southern part of the eastern boundary but has not been installed along the area of the active pit area. Efforts have been made to plant trees in this area but the planting failed.  Bushland will be established once operations have finished in three years.	NC	Consider installing visual screen along Wean Rd.
The requirements of the Australian Standard AS 4282 1997 - Control of Obtrusive Effects of Outdoor Lighting will be taken into consideration when placing lights required when working outside of daylight hours.	Section 3.2.9	Site Inspection	A Lighting audit was completed by MIDAS in 2017 and due consideration given to lighting..	C	
<b>Reporting</b>					
Results of rehabilitation monitoring will be reported in the AEMR/Annual Review. The AEMR/Annual Review will also discuss rehabilitation performance against key performance measures/indicators, compliance with regulatory requirements and commitments, and identified trends and instances where potential rehabilitation failure has been identified triggering intervention in accordance with a Rehabilitation TARP	Section 10	AEMR 2016 and 2017 Rehabilitation Monitoring Plan	Monitoring of rehabilitation is discussed comprehensively in the AEMRs (Section 5) and includes all requirements.	C	Consider including the Rehabilitation TARP in the RMP to ensure implementation of the TARP occurs

## **Environmental Management Strategy**

Commitment	Commitment Reference	Reference/Evidence (2019)	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Complaints Management</b>					
<p>A publicly advertised telephone complaints line will be in place to receive complaints during operating hours and record complaints at other times.</p> <ul style="list-style-type: none"> <li>Each complaint received will be recorded on a Complaints Register, which will include the following details:               <ul style="list-style-type: none"> <li>The date and time of complaint.</li> <li>Any personal details the complainant wishes to provide or if no such details are provided a note to that effect.</li> <li>The nature of the complaint.</li> <li>The action taken by Whitehaven in relation to the complaint, including any follow-up contact with the complainant.</li> <li>If no action was taken by Whitehaven, the reason why no action was taken.</li> </ul> </li> <li>The Environmental Officer will be responsible for ensuring that an initial response is provided within 24 hours of receipt of a complaint (except in the event of complaints recorded when the mine is not operational).</li> <li>The cause of the complaint and any required remedial actions identified.</li> <li>Additional measures will be undertaken as required to address the complaint. This may include visiting the complainant, or inviting the complainant to the mine site.</li> <li>Once the identified measures are undertaken, the Environmental Officer will sign off on the relevant complaint within the Complaints Register.</li> <li>If necessary, the Environmental Officer will follow-up to confirm the source of the complaint is adequately mitigated.</li> <li>A copy of the Complaints Register will be kept by Whitehaven and made available to the CCC and the complainant (on request). A summary of complaints received every 12 months will be provided in the Annual Review.</li> </ul>	Section 4.5.2	<p>Complaints register (<a href="http://www.whitehavencoal.com.au/sustainability/environmental-management/rocglen-mine/">http://www.whitehavencoal.com.au/sustainability/environmental-management/rocglen-mine/</a>)</p> <p>AEMR 2016 and 2017</p>	<p>Website lists phone number 0428 114 814.</p> <p>Tested number - goes directly to Rocglen Graduate Environment Officer.</p> <p>Review of complaints on website indicates all details are maintained with exception of name of complainant due to privacy. Complainant details are recorded separately on an offline report.</p>	C	
<b>Response to Non-Compliances</b>					
<p>A review of the mine's compliance with all conditions of PA 10_0015 MOD 2, ML 1620, ML 1662, EPL 12870 and all other approvals and licenses will be undertaken prior to (and included within) each Annual Review submitted to DPE and DRE. The Annual Review will also be provided to GSC, relevant agencies, the CCC and to the public on Whitehaven's website.</p>	Section 4.6	<p>AEMR 2016</p> <p>AEMR 2017</p>	<p>Reviews of compliance against the conditions of the OA, ML, EPLS and other licences and approvals have not been completed in the AEMRs for 2016 and 2017. These were included in Appendix 3 for previous reporting years.</p>	O (Compliant)	<p>Consider including tables of the approvals in the Annex of the Annual Reviews with review of compliance completed.</p>

## **GHG Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments (2019)	Compliance Status (2019)	Recommendations
<b>Monitoring Program</b>					
Parameters Measured Activities on the mine site will emit dust in various forms, namely total suspended particulate matter (TSP), particulate matter with aerodynamic diameters less than 10µm (PM <sub>10</sub> ), and deposited dust (which is assessed as insoluble solids as defined in Australian Standard AS 3580.10.1-2003 Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method).  No direct monitoring of TSP is proposed as PM <sub>10</sub> concentrations are considered of greater significance given its synergies with health-related issues, however indirect calculation of TSP will be made from PM <sub>10</sub> measurements, using a previously determined relationship factor of 2, to determine compliance with Schedule 3 Condition 15 Table 4 of PA 10_0015 MOD 2.	Section 4.1.1	AEMR 2016	TSP reported in AEMR 2017 - Addressed	C	
In the event that PM <sub>10</sub> levels are determined to be high as a consequence of ambient or other sources, by confirmation from surrounding PM <sub>10</sub> networks, the activity log will identify this source, with no specific requirement for Rocglen operations to cease activity.	Section 4.1.2	Reworked HVAS Spreadsheet Rocglen PM <sub>10</sub> HVAS Data  Annual Review 2018 EC Rework Draft (evidence of review of AQ data and determination of whether mine related or not).	Investigation of whether the site is the cause of dust primarily focusses on the prevailing wind direction and assessment of mining activities at the time of the exceedance. Records identify if regional dust storms were present at the time of the exceedance - this would be inferred from review of surrounding PM <sub>10</sub> networks.	C	
<b>Notification (of exceedance)</b>					
In the event that the PM <sub>10</sub> level recorded for a single 24 hour period exceeds 50µg/m <sup>3</sup> , the Group Manager - Environment will notify the EPA as to the nature of the exceedance(s) and all relevant records of activities and weather conditions during the 24 hour period. A single exceedance may be considered anomalous, however repeated exceedances will require the preparation of a corrective action plan.	Section 5.1	Environmental Officer Interview  Air Quality and Greenhouse Gas Management Plan  Annual Review 2018 EC Rework Draft (evidence of review of AQ data and determination of whether mine related or not).  Rocglen Monitoring Points.xls  Reworked HVAS Spreadsheet Rocglen PM <sub>10</sub> HVAS Data  Dust monitor Audit 20150220.pdf (specific to DPE additional investigation item)  Sentinex daily dust monitoring summary from TEOM (SX99 - G3-dustmetchart-20190219.pdf) - Includes wind speed, direction and rainfall (as well as PM <sub>10</sub> )	Annual average limit for deposited dust was exceeded at two locations (one was WHC owned land - 'Belah', an unoccupied property) and privately owned 'Penryn'. Investigation identified that these events were unlikely to be mine related given that predominant wind directions were not from the mine to the direction of the gauges.  Costa vale HVAS (non-EPL related sampler) demonstrated five exceedances in 2018 but investigation revealed that none were due to mine activity based on prevailing wind direction not being towards monitors, regional dust storm events or when mine was not operating. Four exceedances at Costa Vale in 2017. The exceedances occurred on a Sunday when the mine was not operating and the remaining three events were deemed not mine related due to the prevailing wind conditions. Roseberry demonstrated one exceedance in 2018 and was due to regional dust event. No exceedance at Roseberry in 2017. No exceedances identified for either sampler in 2019.  TEOM is only used for management - alarms sent to relevant staff. Update to AQMP in 2018 clearly stated that the TEOM is for management only.  Audit on 20 February 2015 demonstrates assessment into clearance from structures, 10m from tree dripline, unrestricted air flow around inlet and >5m from source. BD3 and BD8 had items to be addressed in terms of siting. Height of gauge also assessed. BD7 outside of margin for error of 0.2m. Environmental officer did not know whether items raised were addressed as it was prior to her tenure.  Co-ordinates of deposited dust gauges, TEOM and HVAS's were provided in Rocglen Monitoring Points spreadsheet.  24 hour averages of TEOMs are provided by email but not recorded within a tracking spreadsheet (the TEOM is used as a management tool only). The TEOM will send an alarm via SMS to the Mine Manager and OCE when the 24hr PM <sub>10</sub> criteria is reached so that actions can be completed immediately.	C	
In the event that the annual average dust deposition recorded at any off-site monitoring location exceeds 4g/m <sup>2</sup> /month, or PM <sub>10</sub> exceeds 30µg/m <sup>3</sup> , the Group Manager - Environment will notify the EPA as to the nature of the exceedance(s). In consultation with the EPA, and following further analysis of the results to determine dust composition and review of historical trends over prior annual periods, it will be determined if the annual exceedance is related to mining activities.	Section 5.1	As above	As above	C	
In addition, in the event of an exceedance in 24 hour PM <sub>10</sub> criteria or the annual average PM <sub>10</sub> or dust deposition criteria Schedule 4, Condition 2 of PA 10_0015 MOD 2 requires RCM to notify the affected landowner of an air quality criteria exceedance, and provide regular monitoring results to each of these parties until the project is complying with relevant criteria again.	Section 5.1	Signed Letter.pdf Signed Letter_delivered 2017_05_0	Exceedances of air quality criteria where identified to not be a consequence of mining activity and hence consultation with landholders was not undertaken	C	

## **Blast Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<p><b>Road Closures</b></p> <p>The limit of open cut mining encroaches within 500 metres of Wean Road in its assigned position. As per the existing 2013 Road Closure Management Plan (originally approved by Gunnedah Shire Council in 2009), the safety of traffic on Wean Road is ensured via the following actions:</p> <ul style="list-style-type: none"> <li>For all blasts within 500 metres of Wean Road, the road will be closed with blast notice boards updated at least 24 hours prior to each blast. Road closures will typically occur for a period of up to 10 minutes.</li> <li>Following the blast, Whitehaven will inspect the road surface and remove any rock fragments from the road surface prior to re-opening and</li> <li>Whitehaven will monitor the distance flyrock travels (if any) beyond the designed blast envelope and identify if further safeguards are required.</li> </ul>	Section 3.6	WHC_PRO_OC_Blast Management Procedure AEMR 2016 and 2017	Fume Commitment is made within WHC_PRO_OC_Blast Fume Management to utilise blast boards and road closures. AEMR states that post blast inspections have been carried out and that has determined that current blast procedures are not compromising the safety of infrastructure, people or animals.	C	
<b>INSPECTIONS AND NOTIFICATIONS</b>					
<p><b>Pre-Blasting Notification</b></p> <p>Notification to the general public about proposed blasting dates and times is provided via a blast notice board near the mine entrance on Wean Road. This will notify passing motorists when the next blast is scheduled. Two additional signs are provided to the north and the south of the mine site on Wean Road to notify motorists of potential road delays between 5am to 5pm, a contact phone number is also provided. A second blast notice board is displayed on the western entrance to notify traffic entering RCM from the Whitehaven haul route of proposed blasting dates and times.</p>	Section 4.2	Site Inspection Interview with Environmental Officer Graduate	Entries are placed along road to prevent use of the road by traffic during blasting. Two additional signs on Wean Rd notifying of potential delays are in place.	C	
<b>MANAGEMENT OF INCIDENTS, EXCEEDANCES, NON</b>					
<b>Blasting Criteria Exceedance</b>					
<p>In the event that the monitoring results of a blast identify an exceedance of:</p> <ul style="list-style-type: none"> <li>Peak vector sum velocity (ground vibration) - 5mm/s (ppv), and/or</li> <li>Peak overpressure - 115dBL.</li> </ul> <p>RCM will initiate investigation as to the cause of the exceedance.</p> <p>RCM will notify DP&amp;E and EPA of any blasting related non-compliance or exceedances as soon as practicable after RCM becomes aware of the issue.</p>	Section 6.1.2.1	Monitoring Results Annual Reviews Correspondence with EPA: November 2016, 17 November 2016, 17 July 2017. WHC response to DP&E Show Cause 8 July 2016 EPL Licence variation 4 Sept 2017	WHC received a Show Cause on 20 July 2016 in relation to a non-compliance of this condition due to an exceedance of airblast overpressure recorded at EPL/PA ID BB3 'Rosebery'. WHC consider compliance maintained given a private agreement (12 July 2007) is in place with the property. WHC subsequently agreed with EPA to relocate blast monitoring from Rosebery to Surrey residence as referenced in EPL Licence variation 4 Sept 2017.  The auditor sighted monitoring data in support of Annual Reviews. RCM did not exceed the blasting criteria for any blast during the 2017 to February 2019 reporting period.	NC Duplicated with MCoA 3.5, EPL 1.5.1 and ML1620 (15/8)	Whitehaven Coal Mining Ltd were prosecuted in relation to a blast resulting in a fine event in August 2016. At the time of the IEA, legal proceedings were still in progress. Regulatory action has been completed and there are no outstanding actions.
	Section 6.1.2.1	As above	As above - WHC considered compliant hence not reported.	NC Duplicated with MCoA 3.5, EPL 1.5.1 and ML1620 (15/8)	As above
<p>Within 7 days of the date of the incident, RCM will provide DP&amp;E and EPA with a detailed written report on the incident. The report would include details such as the date, time and nature of the non-compliance or exceedance, the cause or likely cause, the action taken to date and proposed measures to minimise potential for non-compliance or exceedances with future blasts.</p> <p>Exceedances will also be reported in the blasting discussion in the Annual Review.</p>	Section 6.1.2.1	Correspondence with EPA and DP&E	The auditor reviewed the following notifications:  Roglen Noise Exceedance 14 - 16 August 2017, once the exceedance was confirmed on 12 September 2017 EPA and DP&E notified on the same day.  Roglen Noise Exceedance 22 and 25 May 2017, once the exceedance was confirmed on 15 June 2017 EPA and DP&E notified on 16 June 2017.  Roglen Noise Exceedance 24 March 2017, once the exceedance was confirmed on 24 April 2017 EPA and DP&E notified on the same day.  Roglen Noise Exceedance 6 September 2016, once the exceedance was confirmed on 30 September 2017 EPA and DP&E notified on the same day.  Roglen Water Discharge - notified EPA and DP&E 24 November 2017 and later notified both parties that the uncontrolled discharge event was not classified as an incident given there had been over 38.4mm rain.	C	
<b>BLASTING WITHIN 500M OF A PUBLIC ROAD OR PROPERTY</b>					
<p>The date, time and location of the blast/s will be posted on appropriate signs, located on Wean Road.</p>	Section 4.4	Site Inspection Interview with Environmental Officer Graduate	Entries are placed along road to prevent use of the road by traffic during blasting. Two additional signs on Wean Rd notifying of potential delays are in place.	C	
<b>AUDITING</b>					
<p>This document will be reviewed, and if necessary revised, in accordance with Schedule 5 Condition 5 of PA H_0047 i.e. within 3 months of the submission of:</p> <ul style="list-style-type: none"> <li>Annual Review;</li> <li>Incident report;</li> <li>Independent Environmental Audit; or</li> <li>Any modification to the conditions of PA 10_0015.</li> </ul>	Section 4.10	WHC_PLN_ROC_EXT_Blast Management Plan and Appendix	document demonstrates annual review during audit period and update following annual review and following monitor relocation	C	
<p>Additional education and awareness programs will be provided, on an ongoing basis, for relevant personnel working near blast areas such as sentries and drill and blast contractors. Training for relevant personnel (Drill and Blast Engineer, Skoffers, Drillers, OCE's, drill and blast contractors) will be undertaken in accordance with WHC-OC Training and Competency Management Plan, and covers:</p> <ul style="list-style-type: none"> <li>The identification and rating of post blast fumes.</li> <li>The potential health impacts of fume gases.</li> <li>Potential causes of blast fume.</li> <li>Fume mitigating actions as detailed in this procedure.</li> </ul>	Section 4.11	WHC_PRO_OC_Blast Management Procedure Fume	Blast fume procedure commits to additional education and awareness as per the condition.	C	

## **Noise Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>NOISE IMPACT ASSESSMENT CRITERIA</b>					
<b>General and Specific Noise Mitigation Measures</b>					
Prior to being brought on-site, all earthmoving equipment will be tested to ensure sound power levels are consistent with the previous assessments undertaken by Spectrum Acoustics. The sound power levels adopted are those identified in the Rocglen Extension EA Volume 3 Appendix Q (Table 2, Page 10).	Section 2.2	Annual Sound Power Testing 2016, 2017 and 2018	Annual sound power testing is conducted by qualified consultant for all earth moving equipment.	C	
Mid-high frequency broadband beepers are fitted to on-site mobile mining equipment.	Section 2.2	Interview with graduate Environment Officer	The auditor was informed that all equipment is fitted with mid-high frequency reverse beepers	C	
Each 15-minute statistic will have an accompanying third-octave band spectrum.	Section 3.4	refer to MCoA 3.1	Noise monitoring data has had modifying factors applied - as discussed against MCoA condition 3.1.  As previously identified last audit, presenting 15-minute statistic that's has an accompanying third-octave band spectrum would not be practicable for interpretation purposes	C	
<b>Complaints (additional to EMS)</b>					
Data from the site weather station and the real time noise monitoring unit will be obtained for the time applicable to the complaint for use in determination of cause and identification of future remedial actions.	Section 4.2		Complaint on the 13/07/2017 discussed that blast caused excessive noise. The EPA requested information relating to this event and this was provided to the EPA. The response sent to the EPA was not reviewed to confirm whether data from the site weather station and real time noise monitor was utilised.	NV	

## **Rehabilitation Management Plan**



Commitment	Commitment Reference	Reference / Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Task 3: Drainage and Surface Water Structure Installation</b>					
Surface water management structures will be progressively installed on the rehabilitated landform. The heights (effective depths) and cross-sectional areas of the individual banks will be determined on the basis of individual sub-catchment areas, but will typically be less than 0.7 metres and three square metres, respectively. Rock lined drains will be used, where required, to convey water safely from the rehabilitated landform into the surface water management system that takes water from the site. Consideration may also be given to trialling other erosion control devices or systems as rehabilitation processes across the site.	Section 2.4.3	Rehabilitation Management Plan Site Inspection Graduate Environmental Officer	Site inspection identified that banks were present on the eastern rehabilitated areas and conveyed runoff to a series of basins.  The northern emplacement area has a series of banks that convey runoff to rock lined drains and finally on to sediment basins. The final sediment basin discharge point may be directly adjacent to its inlet and in time of flow, basin may not be providing optimum retention / opportunity for settlement. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.  On the eastern side of the graded sub-soil stockpile adjacent to Wean road, a breach in a perimeter bund downslope of the haul road was identified.	O (Non-compliant)	Repair the breach in the perimeter bund. Review ESCP and basin design in the northern emplacement area to ensure optimum arrangement.
Where stockpiles become weed infested, the top 150 millimetres should be scalped off and discarded prior to the remaining material being utilised for rehabilitation.	Section 2.5	Interview with Graduate Environmental Officer	Environmental field officer completes this on a campaign basis.  Scalping is unlikely to occur due to shortages of topsoil.  Register of herbicide usage not available for review. The NSW Pesticides Regulation requires that records be kept of pesticide use (including herbicides). Individual spraying records are maintained. All required information for the NSW Pesticides Regulation with the exception of who has applied the pesticide/herbicide.  No record of treatment for stockpiles prior to reuse.	O (ANC)	Consider including in an existing procedure (if appropriate) or developing a new procedure to ensure stockpiles are inspected and treated for weeds prior to re-spreading/reuse on site.
<b>Weed Management</b>					
Weed control measures include:  • Hosing down equipment in an approved wash down area before entry to site; • Herbicide spraying or scalping weeds off topsoil stockpiles prior to re-spreading; • Rehabilitation inspection to identify potential weed infestations; and • Identifying and spraying existing weed populations on-site together with on-going weed spraying over the life of the mine.	Section 2.6	WHC_CHK Monthly Environmental Inspection Checklists	Monthly check for weeds in rehabilitated areas completed by Environment Officer.  Site vehicles remain on internal roads. Weeds sprayed by contractor on campaign basis.	C	
In developing the rehabilitation monitoring program, the following aspects should be taken into consideration:  • Replicated monitoring sites should be established in representative rehabilitation areas of different ages.  One monitoring site per 20 to 40 hectares is appropriate for each major age class of the rehabilitation areas. • Sites should be monitored 12 months after establishment and then every two years. • A standard monitoring plot design for areas rehabilitated with trees should be used:  - 2 metre by 2 metre quadrats - these will provide some estimate of statistical variance, so that if required, statistical analyses can be undertaken to objectively compare different rehabilitation treatments and changes over time;  - a 20 metre by 10 metre plot overlying the 2 metre quadrats and located 5 metres either side of the centerline, for ease of monitoring; and  - a 50 metre erosion monitoring transect on contour, running through the centre of the plot.	Section 2.8	AEMR 2017	AEMR 2017 indicates flora and fauna monitoring was conducted in 2017.  Table in RMP indicates monitoring to be completed every two years - review of AEMRs indicates Eco Logical Report completed 2015 is the first report since the report was completed for the Project Extension in 2010.	NC	No further action required.
<b>REVIEW OF REHABILITATION MANAGEMENT PLAN</b>					
Five years prior to mine closure, a more detailed Rehabilitation and Mine Closure Plan will be prepared.	Section 6	WHC_PLN_ROC_Rehabilitation Management Plan	RMP on website is dated 2013 - Closure MOP submitted within time period.	C	

## **Traffic Noise Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>MONITORING PROGRAM</b>					
<b>Monitoring Locations</b>					
The monitoring report will include, as a minimum:	Section 5.2		Noise reports were provided when in the field but were not reviewed against this item hence the status couldn't be verified.	NV	
o the total number of trucks counted during the noise measurement (identified as empty or full);					
o the total measured LAeq (1 hour) from coal trucks;					
o the total measured LAeq (1 hour) from all sources to allow comparison of contribution from coal haul trucks comparative to other sources.					
o details of any identified noisy truck(s);					
o details of the calculation methodology; and					
o wind speed and directional data and a discussion of potential meteorological influence on noise levels during each measurement period.					
<b>Reporting Requirements</b>					
A summary of noise monitoring results will be reported internally on a monthly basis as well as on a quarterly basis to the Community Consultative Committee (CCC) via the Environment Monitoring Report. This report will be periodically uploaded onto the company's website (www.whitehavencoal.com.au).	Section 7.2	CCC Minutes (available on project website)	CCC meetings have moved from quarterly to six monthly therefore monitoring results are reported at this time. Review of CCC meeting minutes indicate monitoring is now undertaken on a 6 monthly basis. Results are included in the minutes.	ANC	Consider reviewing the reporting frequency to align with the CCC meeting frequency
<b>DOCUMENT REVIEW AND CONTINUOUS IMPROVEMENT</b>					
This document will be reviewed at least every two years and following any significant changes (i.e. changes to approval/licence requirements or monitoring protocol). Each review will be undertaken in consultation with relevant stakeholders and will be submitted to the Director-General for approval.	Section 8	WHC_PLN_ROC_EXT_Noise Management Plan and RTNMP Appendix (reviewed annually during the reporting period)  Rocglen Management Plan Review email provided to demonstrate that the revised noise management plan had been provided to the DPE for approval.	Review and submission to the DPE for approval had occurred.	C	

## **Water Management Plan**



Commitment	Commitment Reference	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<b>Water Balance Review</b>				
An update of the site water balance will be undertaken on an annual basis as part of the annual review of the WMP, or following any new or modified approval conditions relevant to water management or where there is any change to the operations which are likely to materially change potential impacts	Section 3.6	Water for mining operations is currently being sourced from Canyon mine void as deficit in available water at Rocglen  27072018094721-0001.pdf - Letter from Ashurst Lawyers to confirm use of water from Canyon void for Rocglen and Tarrawonga in dry years. States that it is pursuant to the Rocglen project approval.  SLR 2017 Rocglen Coal mine 2017 site water balance (630.12130_RCM Site Water Balance 2017 Final.  1471-01-D1 WB Final - WRM.2018 Site water balance. Environmental Officer indicated that identified deficit in dry year - hence investigation into Canyon water supply.  <i>A former mentioned two water balance demonstrate in the each year</i>	C	
Installing temporary erosion and sediment control devices as required (i.e. sediment fences, sand bag weirs) to minimise the discharge of sediment laden water from newly disturbed areas	Section 4.1	Sediment basin SD3 was observed to have been desilted. The sediment control (sediment fence) at the base of the subsoil stockpile on the eastern edge of the site was no longer functioning and it appeared that no catch drain was present below this stockpile. Scour was present in rehabilitation areas where revegetation has been unsuccessful. Review of the outlet location on Dam B that forms the licenced discharge point may allow for minor modifications to improve water treatment when basin is full as inlet and outlet are currently adjacent.	NC  Duplicated with SoC	Subsoil stockpile on eastern side appears to require improved erosion and sediment controls to prevent sediment laden runoff discharges from site. Explore whether improvement to Dam B inlet and outlet location is possible.
Implementing an effective revegetation and maintenance program for the site	Section 4.1	Drought is affecting revegetation success. Regrading is to occur on the western emplacement area.  The soil is undergoing testing to determine ameliorant type and rate to encourage growth of any further seeding campaigns.  The auditor notes, a number of rehabilitation methods were trialled last year at Rocglen. As part of investigating alternative methods the Rocglen Environmental representative visited other WHC sites to investigate rehabilitation methods that might be suitable. Further there were efforts made for re planting on the northern face utilising improved tree planting methods from lessons from biodiversity team. In addition soil sampling was conducted to investigate improving soil quality.	O (Compliant)	Develop a maintenance program and continue to investigate alternative rehabilitation methods to increase success.
<b>Surface Water Monitoring Program</b>				
<b>Impact Assessment Criteria and Trigger Levels</b>				
Water quality monitoring results for downstream watercourses (Driggle Draggie Creek and the unnamed creek to the south of the site) will be assessed, for each monitoring event, against key default trigger values presented in Table 7 and sourced from the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000).	Section 4.9.3	Unnamed drainage channel and Driggle Draggie Creek sampled for wet weather discharges analytes only (pH, TSS, TOC, and EC). No further testing or comparison to the ANZECC guidelines listed in Table 7 has occurred	NC	Consider the review of the water monitoring program and confirm the required analytical program and action accordingly.
<b>"Coal Contact" Dams Water Quality and Monitoring</b>				
As directed by the EPA (EPA letter dated 21st August 2015), where runoff from coal contact areas is captured in storage dams designed for sediment control, Rocglen Coal Mine will need to establish whether the discharge from these structures contains pollutants that pose a risk of non-trivial harm to human health and/or the environment. As directed by the EPA, trivial versus non-trivial pollutant concentrations can be defined with reference to the default trigger values for toxicants and physical/chemical stressors in the ANZECC (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality. If a pollutant exceeds the relevant trigger value, it can be considered that it poses a risk of non-trivial harm to human health and/or the environment.	Section 4.9.5	2017 WMP states that 'At this stage there is insufficient water quality data available at dams SD3 and Dam 'B' to make an assessment against the ANZECC trigger values and to ascertain the risk associated with regard to the impact of coal contact water discharged from Rocglen Coal Mine on human health or the receiving environment. Rocglen Coal Mine will implement a monitoring program to address this data deficiency'.	C	Monitoring is ongoing and once sufficient data becomes available and on completion of detailed analysis, Rocglen Coal Mine will consult with the EPA in regard to risk associated with coal contact water on human health or the receiving environment.
Rocglen Coal Mine will implement a monitoring program to address this data deficiency. This monitoring program is proposed to include sampling of waters from SD3 and Dam 'B' for parameters including the physio-chemical parameters pH, EC, TSS, organic nutrients, dissolved metals and oil and grease.	Section 4.9.5	as above	C	as above
<b>Channel Flow and Riparian Vegetation Monitoring</b>				
A program to monitor creek line channel stability and health of riparian vegetation within Driggle Draggie Creek and the unnamed creek to the south of the site would be undertaken throughout the mine life. The monitoring would be undertaken along a short length of the downstream watercourses. General observations of stream health will be recorded during the quarterly water quality monitoring for these Monitoring of the drainage lines would include:  <ul style="list-style-type: none"> <li>Documenting general observations of water quantity and quality;</li> <li>Documenting locations and dimensions of significant erosive or depositional features so that any subsequent changes can be evaluated quantitatively;</li> <li>Establishing multiple photographic points at representative locations, so that photos can be taken over multiple inspections in a repeatable manner;</li> <li>Written descriptions of the stream at each of the photographic points, focussing on evidence of erosion and exposed soils; and</li> <li>Documenting general indicators of stream health, including abundance of flora and fauna.</li> </ul>	Section 4.9.6	AEMR 2017 includes water quality sampling of the creek only.	NC	Consider the review of the creek monitoring program and action accordingly.



Commitment	Commitment Reference	Comments (2019)	Compliance Status (2019)	Recommendations (2019)
<p>The results will also be compared to relevant site operations and meteorological conditions to further interpret the results. This comparison between samples, between sampling periods and against other factors will assist in identifying whether the activities on the site are in fact affecting the water quality of the local catchment.</p>	Section 4.9.8	<p>Review of Excel spreadsheet – comments column includes comment if rainfall has exceeded 90%tile or if no discharge.</p> <p>No comment on operations is noted.</p>	ANC	<p>If no discharge then consider adding results to surface water sampling sheet to remove confusion. In addition consider adding the rainfall reviewed the prior 5 days and note the activities on site that may impact water quality, such as earthworks/ground disturbance.</p>
<b>GROUNDWATER MANAGEMENT PLAN</b>				
<b>Groundwater Assessment Criteria</b>				
<p>Groundwater impact assessment criteria are contained in Table 10 below, and show trigger levels for groundwater levels and quality (pH, EC, TDS).</p>	Section 5.4.3	<p>Pressure transducers/loggers installed in monitoring bores on site in accordance with the EA have shown relatively consistent groundwater levels at all 5 recording sites for the previous two years.</p>	O (Compliant)	<p>Consider graphs to demonstrate groundwater quality against criteria for demonstration of analysis.</p>
<b>Groundwater Inflows to Mining Operations</b>				
<p>The following two methods are used to estimate groundwater inflows to the mining operations:</p> <ul style="list-style-type: none"> <li>• Whitehaven will monitor the volume of water pumped out of the pit. If this coincides with a period of low or no rainfall, this will be used directly as a measure of groundwater inflow. If this occurs during periods of rainfall the site water balance model will be used to estimate the rainfall runoff component and, by subtraction, estimate the groundwater inflow; and</li> <li>• Monitored bore water levels is used to estimate groundwater gradients towards the open cut pit, by triangulation. Estimated gradients would be used together with estimates of strata permeability to calculate groundwater flow rates toward the pit. This would be estimated annually as part of the groundwater model verification.</li> </ul>	Section 5.4.5	<p>Table 10 has been included in AEMRs to identify water volumes that inflow to the pit / and are actively taken from the pit via pumping and Table 12 includes water stored and used throughout the reporting period. Discussion of rainfall volumes is not provided in the AEMR. A separate water balance is prepared each year.</p>	O (Compliant)	<p>Consider including water sources including rainfall volumes and losses including evaporation in the Annual Review.</p>
<p>Groundwater exceedance procedure:</p> <ol style="list-style-type: none"> <li>1. Check and validate the data which indicates an exceedance of the assessment criteria / trigger level (as soon as possible and within 7 days).</li> <li>2. Notify NSW Department of Planning and Environment (DPE) and any other relevant department as soon as practicable (within 7 days after becoming aware of the exceedance).</li> <li>3. A preliminary investigation will be undertaken to identify the cause and determine whether changes to the groundwater management system are required. This will comprise analysis of the exceedance result, baseline groundwater monitoring, current monitoring results in the vicinity of the exceedance, meteorological conditions of the period, current site activities and adjacent land use activities, including pumping from nearby irrigation bores.</li> <li>4. A preliminary investigation report of the exceedance is to be prepared and submitted to the DPE and any other relevant department (within 28 days of the incident).</li> <li>5. Any further investigations recommended by the preliminary investigation report will be conducted in consultation with DPE and any other relevant departments (timeframe to be determined in consultation with DPE).</li> <li>6. Remedial measures will be developed in consultation with DPE and any other relevant department and implemented in response to the outcomes of the investigations (timeframe to be determined in consultation with DPE).</li> <li>7. In emergency situations water will be supplied to the impacted landholder within 7 days of the exceedance, at least on an interim basis, until investigations are completed.</li> <li>8. Additional monitoring would be implemented to measure the effectiveness of contingency measures where necessary (timeframe to be determined in consultation with DPE).</li> </ol>	Section 5.5.2	<p>Review of results indicate some triggers may have been reached – refer above.</p>	<p>NC</p> <p>Duplicated with this plan</p>	<p>Consider the review and check of data to confirm if trigger values have been reached for some parameters and action accordingly. Perhaps include comparison to triggers in table and or graphs to easily identify exceedances of trigger levels.</p>

## APPENDIX B      DEPARTMENTAL CORRESPONDENCE

## Oliver Moore

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:48 PM  
**To:** Tim.Baker@dpi.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

Hi,

ERM is currently completing an independent environmental audit on the Conditions of Approval issued to Whitehaven for both Rocglen and Canyon coal mines.

The attached Terms of Reference outlines the audit process, and also introduces the team of suitably qualified, experienced and independent experts who will be undertaking the audit. The site inspection will be completed over the period 18 – 21 February 2019.

One of the requirements of the audit is that it is to be undertaken in consultation with relevant agencies. To that end, this email invites you to raise any questions or concerns regarding this project from an environmental management perspective. Please send through to myself copying in my colleague Tim.

Kind regards

Olly

**Oliver Moore**

Principal Environmental Consultant

**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 11 February 2019 12:52 PM  
**To:** 'Heidi Watters'  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon; Steve O'Donoghue; Leah Cook  
**Subject:** RE: Rocglen and Canyon IEA

Heidi,

Many thanks for taking time out to prepare these areas of focus. We will consider during the audit process.

Kind regards

Olly

Oliver Moore  
Principal Environmental Consultant  
T +61 2 8584 8886 | M +61 419 222 370

---

**From:** Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>  
**Sent:** Monday, February 11, 2019 11:32 AM  
**To:** Oliver Moore <Oliver.Moore@erm.com>  
**Cc:** Tony Dwyer <tdwyer@whitehavencoal.com.au>; Emily Clements <EClements@whitehavencoal.com.au>; Michael Gaggin <Michael.Gaggin@erm.com>; Tim Haydon <Tim.Haydon@erm.com>; Steve O'Donoghue <Stephen.ODonoghue@planning.nsw.gov.au>; Leah Cook <Leah.Cook@planning.nsw.gov.au>  
**Subject:** RE: Rocglen and Canyon IEA

Hi Olly

Thank you for your email regarding agency consultation for the upcoming Rocglen and Canyon IEAs. The Department provides the following in response:

**Areas of interest for the Rocglen IEA:**

1. Water management
  - a. Water balance for the audit period, including a comparison to the actual to the predictions in the EIS (as modified)
2. Biodiversity management
  - a. Status of offset security arrangements and any changes during the audit period
  - b. Assessment of the implementation of offset management plan
3. Rehabilitation
  - a. Actual rehabilitation compared to EIS (as modified) predictions, including final void catchment area, proposed landform and proposed land use
  - b. Adequacy of rehabilitation monitoring
4. All management plans
  - a. Review of management plans during the audit period
  - b. Consultation with agencies and stakeholders in review of management plans
5. Environmental monitoring
  - a. Siting of monitoring equipment compliant with the *Approved Methods for Sampling of Air Pollutants in New South Wales*

**Areas of interest for the Canyon IEA:**

1. Biodiversity management
  - a. Status of offset security arrangements and any changes during the audit period
  - b. Assessment of the implementation of Flora and Fauna management plan
2. Rehabilitation
  - a. Actual rehabilitation compared to EIS predictions
  - b. Adequacy of rehabilitation monitoring
  - c. Water discharge quality from rehabilitated catchments via sediment dams to receiving waters
3. All management plans
  - a. Review of management plans during the audit period
  - b. Consultation with agencies and stakeholders in review of management plans
4. Environmental monitoring
  - a. Siting of monitoring equipment compliant with the *Approved Methods for Sampling of Air Pollutants in New South Wales*
  - b. Adequacy of environmental monitoring programme

Please call or email if you have any further questions.

Regards

**Heidi Watters**

Senior Compliance Officer  
Planning Services  
Suite 14, Level 1, 1 Civic Ave | Singleton NSW 2330  
T 02 6575 3401 M 0472 820 374



**Planning &  
Environment**



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**From:** Oliver Moore <[Oliver.Moore@erm.com](mailto:Oliver.Moore@erm.com)>

**Sent:** Monday, 4 February 2019 5:44 PM

**To:** DPE PSVC Compliance Mailbox <[compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)>; Heidi Watters <[Heidi.Watters@Planning.nsw.gov.au](mailto:Heidi.Watters@Planning.nsw.gov.au)>; Steve O'Donoghue <[Stephen.ODonoghue@planning.nsw.gov.au](mailto:Stephen.ODonoghue@planning.nsw.gov.au)>

**Cc:** Tony Dwyer <[tdwyer@whitehavencoal.com.au](mailto:tdwyer@whitehavencoal.com.au)>; Emily Clements <[EClements@whitehavencoal.com.au](mailto:EClements@whitehavencoal.com.au)>; Michael Gaggin <[Michael.Gaggin@erm.com](mailto:Michael.Gaggin@erm.com)>; Tim Haydon <[Tim.Haydon@erm.com](mailto:Tim.Haydon@erm.com)>

**Subject:** Rocglen and Canyon IEA

Hi,

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Kind regards

Ollly

**Oliver Moore**

Principal Environmental Consultant

**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:47 PM  
**To:** Renee.Shepherd@environment.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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Kind regards

Olly

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Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:46 PM  
**To:** Armidale@epa.nsw.gov.au; Simon.Lund@epa.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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**Environmental Resources Management**

Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

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**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:45 PM  
**To:** Minres.environment@industry.nsw.gov.au; Jeremy.arnott@planning.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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## Tim Haydon

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**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:44 PM  
**To:** compliance@planning.nsw.gov.au; Heidi.Watters@Planning.nsw.gov.au; Stephen.ODonoghue@planning.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

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Olly

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Level 15 | 309 Kent Street | Sydney NSW 2000

**E:** [oliver.moore@erm.com](mailto:oliver.moore@erm.com) | **W:** [www.erm.com](http://www.erm.com)

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Monday, 4 February 2019 5:50 PM  
**To:** council@infogunnedah.com.au; council@narrabri.nsw.gov.au  
**Cc:** Tony Dwyer; Emily Clements; Michael Gaggin; Tim Haydon  
**Subject:** Rocglen and Canyon IEA  
**Attachments:** ERM Audit Terms of Reference (February 2019) - Rocglen Coal Mine.pdf; ERM Audit Terms of Reference (February 2019) - Canyon Coal Mine.pdf

Hi,

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## Tim Haydon

---

**From:** Oliver Moore  
**Sent:** Friday, 15 March 2019 3:27 PM  
**To:** 'Heidi Watters'  
**Cc:** Michael Gaggin; Tony Dwyer  
**Subject:** RE: Rocglen and Canyon Coal Mine Independent Environmental Audit 2019  
**Attachments:** 20181221113323036.pdf; 20181221113855379.pdf

Heidi,

Due to unforeseen circumstances we would like to request an extension for the delivery of the Rocglen and Canyon IEA reports as below. Conscious there is deadline set by the Department of three months from commissioning (Canyon) and 6 weeks from the audit (Rocglen), I wanted to raise this at the earliest possible time.

- Canyon, current deadline 21 March, request extension to 12 April
- Rocglen, current deadline 5 April request extension to 26 April

I have discussed this request with Whitehaven and I'm happy to talk this through with you if required.

Kind regards

Olly

Oliver Moore  
Principal Environmental Consultant  
T +61 2 8584 8886 | M +61 419 222 370

---

**From:** Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>  
**Sent:** Friday, December 21, 2018 11:52 AM  
**To:** Emily Clements <EClements@whitehavencoal.com.au>  
**Cc:** Oliver Moore <Oliver.Moore@erm.com>; Michael Gaggin <Michael.Gaggin@erm.com>; Tony Dwyer <tdwyer@whitehavencoal.com.au>  
**Subject:** RE: Rocglen Coal Mine Independent Environmental Audit 2019

Hi Emily

Please see attached letter endorsing the proposed audit team for the upcoming IEA for the Rocglen Coal Mine.

Please call or email if you have any further questions.

Regards

**Heidi Watters**  
Senior Compliance Officer  
Planning Services  
Suite 14, Level 1, 1 Civic Ave | Singleton NSW 2330  
T 02 6575 3401 M 0472 820 374





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**From:** Emily Clements <[EClements@whitehavencoal.com.au](mailto:EClements@whitehavencoal.com.au)>  
**Sent:** Tuesday, 18 December 2018 4:11 PM  
**To:** Heidi Watters <[Heidi.Watters@Planning.nsw.gov.au](mailto:Heidi.Watters@Planning.nsw.gov.au)>  
**Cc:** Oliver Moore <[Oliver.Moore@erm.com](mailto:Oliver.Moore@erm.com)>; Michael Gaggin <[Michael.Gaggin@erm.com](mailto:Michael.Gaggin@erm.com)>; Tony Dwyer <[tdwyer@whitehavencoal.com.au](mailto:tdwyer@whitehavencoal.com.au)>  
**Subject:** Rocglen Coal Mine Independent Environmental Audit 2019

Hi Heidi,

Please find attached a proposal from ERM to undertake the Rocglen Coal Mine (RCM) Independent Environmental Audit (IEA) as required by Schedule 5, Condition 8 of PA10\_0015.

May you please review and provide endorsement for ERM to undertake the IEA in accordance with the relevant approval conditions?

If you have any queries please do not hesitate to contact myself or Tony Dwyer (02 6741 9316). Thank you in advance.

Kind Regards,

**Emily Clements**

Graduate Environmental Officer

**Whitehaven Coal Limited**

2382 Wean Road, Gunnedah NSW 2380 Australia

**Tel:** 02 6740 7009 **Mobile:** 0428 114 814

**Email:** [eclements@whitehavencoal.com.au](mailto:eclements@whitehavencoal.com.au) [www.whitehavencoal.com.au](http://www.whitehavencoal.com.au)



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across the following  
countries worldwide

Australia	Netherlands
Argentina	New Zealand
Belgium	Peru
Brazil	Poland
China	Portugal
France	Puerto Rico
Germany	Singapore
Hong Kong	Spain
Hungary	Sri Lanka
India	Sweden
Indonesia	Taiwan
Ireland	Thailand
Italy	UK
Japan	USA
Korea	Venezuela
Malaysia	Vietnam
Mexico	

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